ARCHITECT JOURNA



standard

contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur

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BUILDING CURRENT

Major Buildings described:

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No. 34471 [Vol. 133

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the word LONDON is implicit in the address.

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I of Arb Institute of Arbitrators. Hastings House, 10, Norfolk Street, W.C.2. Museum 3473

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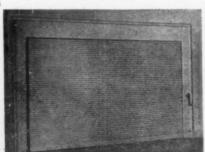
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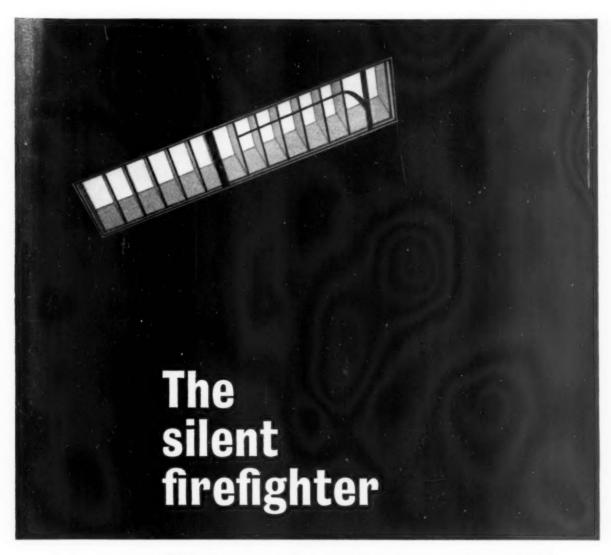




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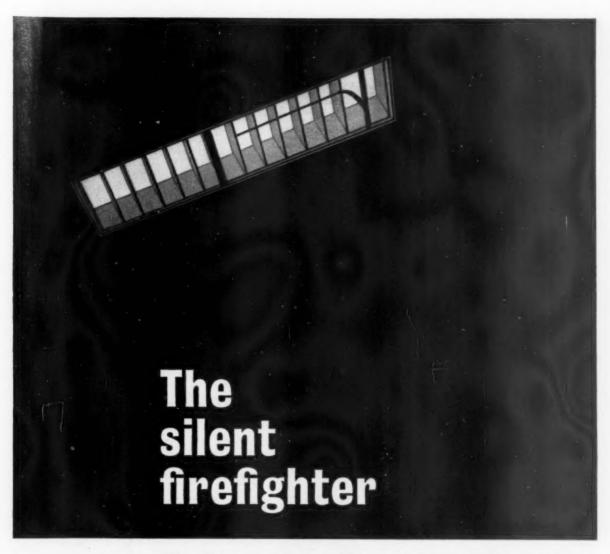




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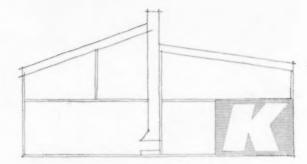
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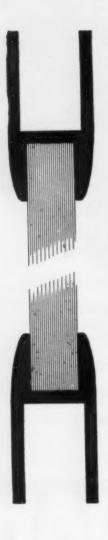
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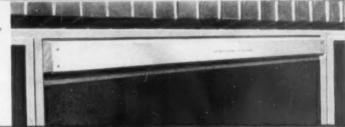
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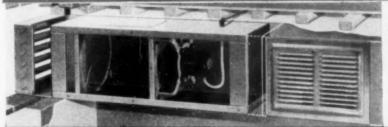
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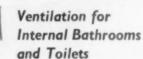
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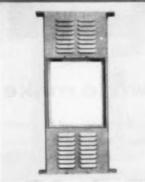


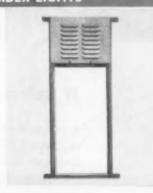
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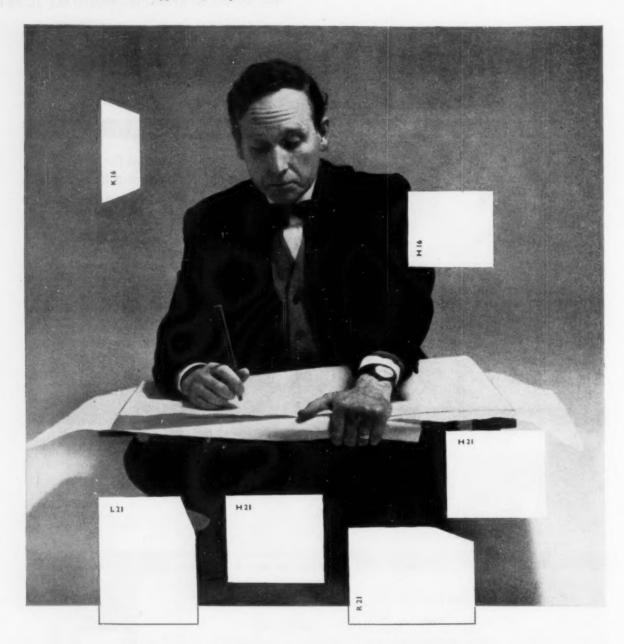
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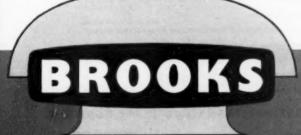
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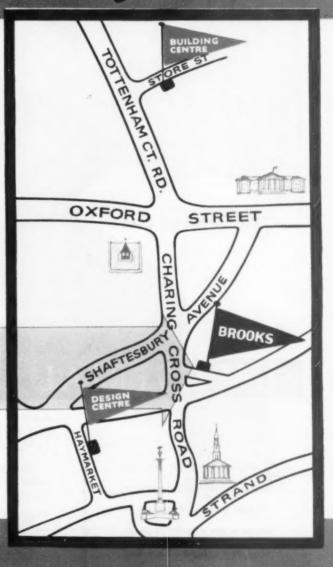
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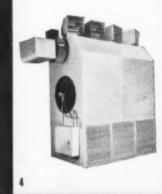
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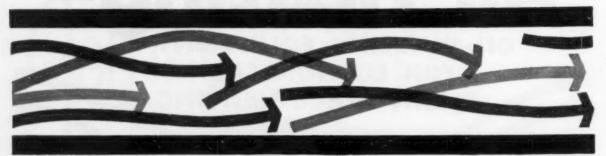
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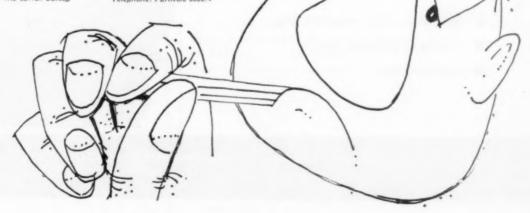
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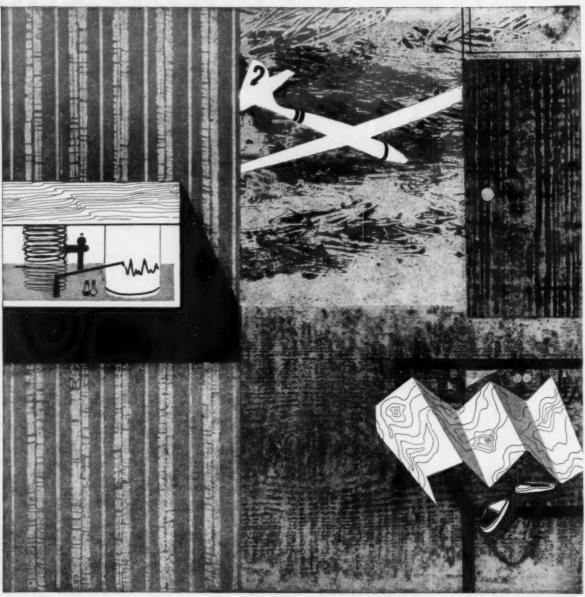
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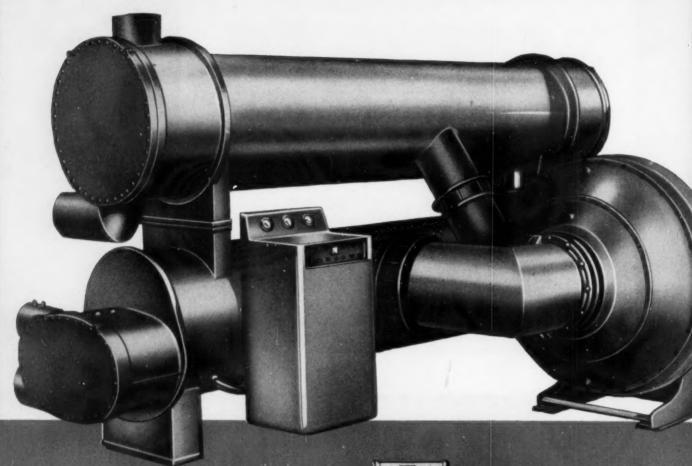
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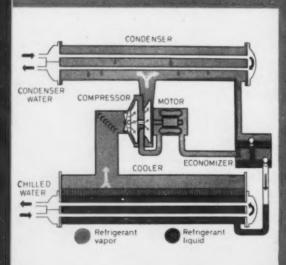
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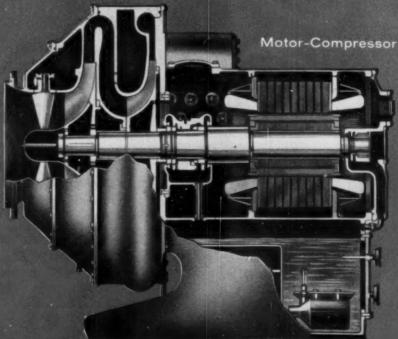
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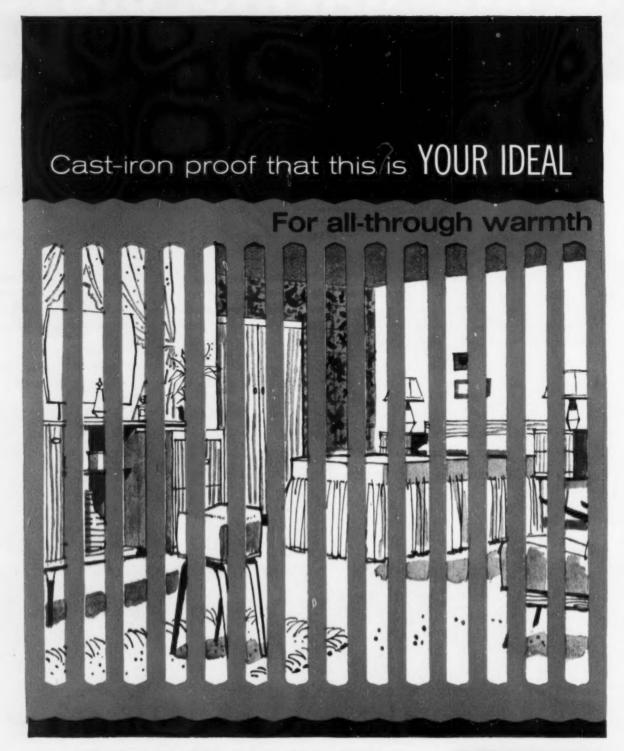
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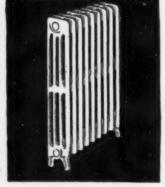
Ideal's cast-iron Neo-Classic radiators give high heat transmission for all-through constant warmth. Long-life warmth, too, thanks to corrosion resistance and precision construction. These radiators are built to last. Their section construction has many advantages, not only at the planning stage, but later when heating requirements increase or decrease. You can add or remove sections whenever you want—with perfect ease! For details of the full range of Ideal cast-iron radiators, please write to Ideal Boilers & Radiators Limited, Ideal House, Great Marlborough Street, London W1. Telephone Gerrard 8886.

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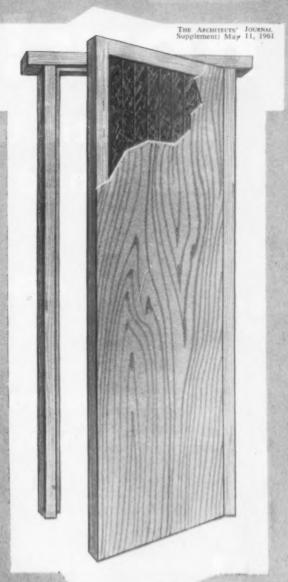
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THE ARCHITECTS' JOURNAL (Supplement) May 11, 1961

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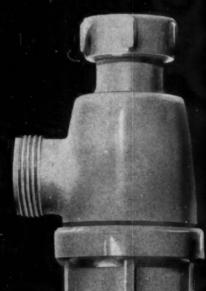
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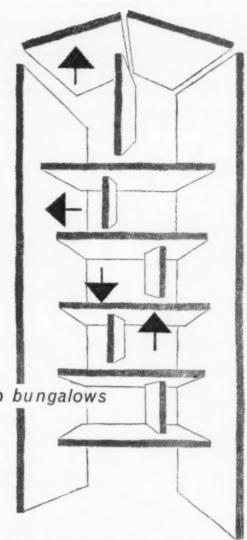
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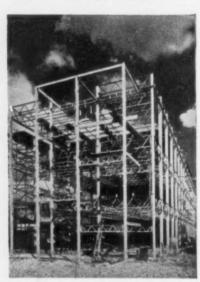
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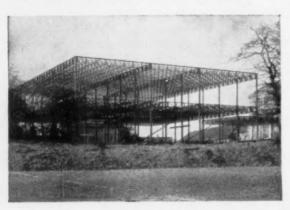
structural steelwork

THE BOWATER PAPER CORPORA-TION LIMITED. The Architects for the new Office Blocks at both Mersey and Northfleet designed for Lattice Steelwork on a medular grid which allowed service lines to be run between floor and ceiling and gave complete flexibility for internal arrangements. Architects: Messrs, Farmer & Dark.



YORK. For the City of York a Grammar School. Sommerfelds designed the Steelwork on a 3 ft. 4 in. modular grid allowing complete freedom for the Architect to use curtain walling and internal arrangements.

Architect: E. Firth, F.R.I.B.A., A.M.T.P.I., City Architect.





B.E.A. For this B.E.A. Building, speed was the essence of the Contract. Sommerfelds designed the Steelwork and from unloading the first lorry on site to the completion of a 250 ton steelwork erection took three weeks.

General Contractors: Messrs. Richard Costain Limited.



I.C.I. For I.C.I. a Laboratory Block. A multi-storey building with a height to eaves of 44 ft. and uninterrupted spans of 50 ft. on each floor. Deep Lattice Beams and light stanchions were used with considerable saving in steel requirements.

Architects: Messrs. J. Douglass Matthews

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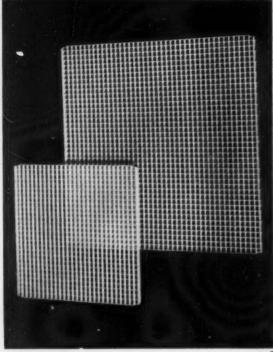
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PARAGRID 24 and 16



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THE ARCHITECTS' JOURNAL (Supplement) May 11, 1961



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ROTO-VEE windows with two-way opening





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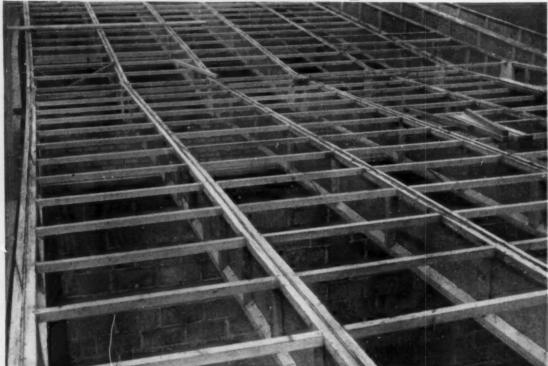
Beves & Company (Merchants) Ltd.

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Beves & Company (Floors) Ltd. Beves & Company (Kent) Ltd. How to get a better roof with Tecton Beamsquicker, easier, cheaper



Architect: Hubert Bennet, F.R.I.B.A. Architect to the Council, County Hall, S.E.I. Contractors: Harrison and Spooner Ltd., Bristol House, 23 Holborn Viaduct, E.C.I.

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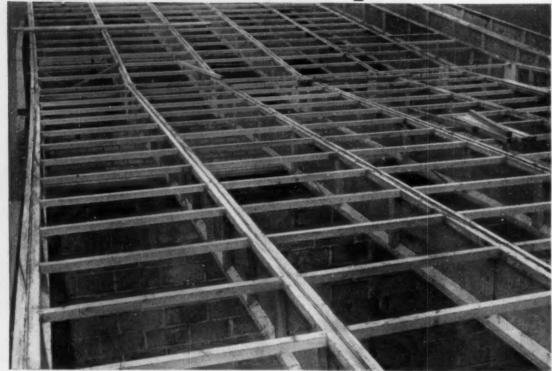
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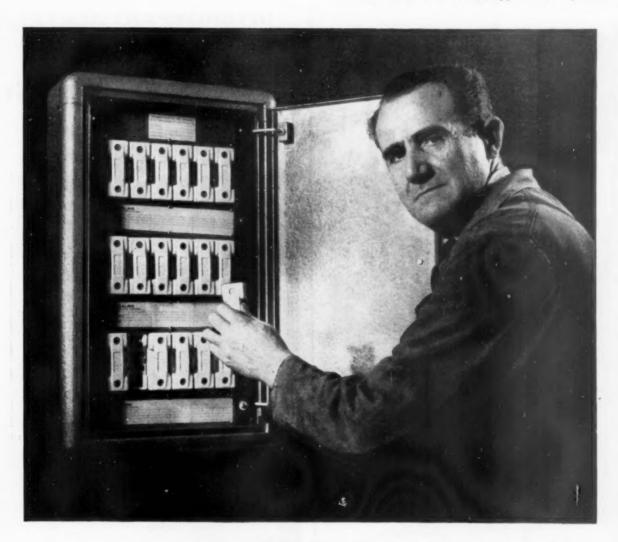


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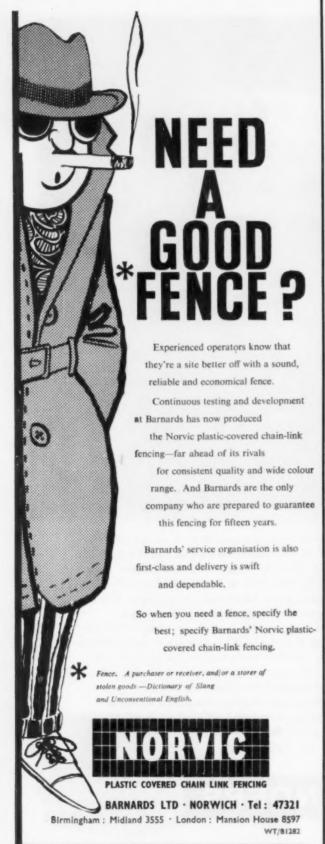
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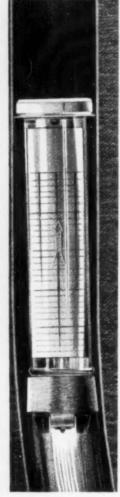
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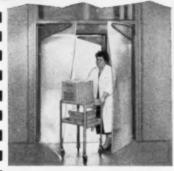
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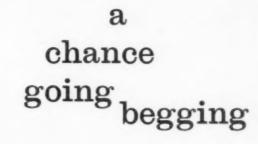
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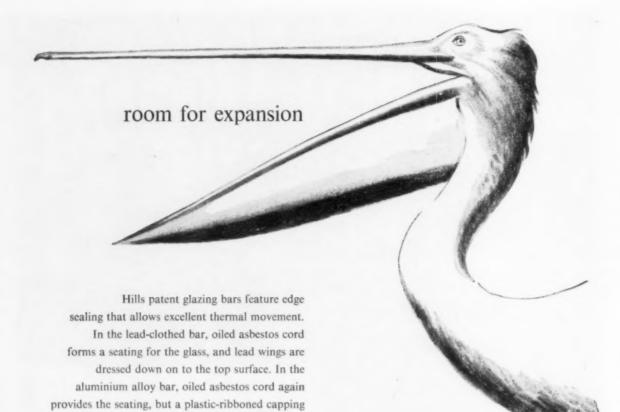
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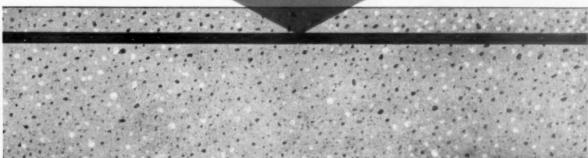
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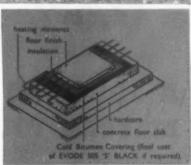


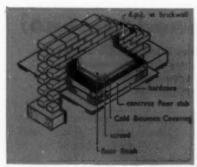
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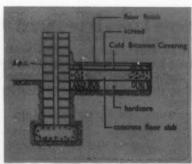


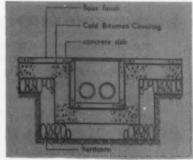
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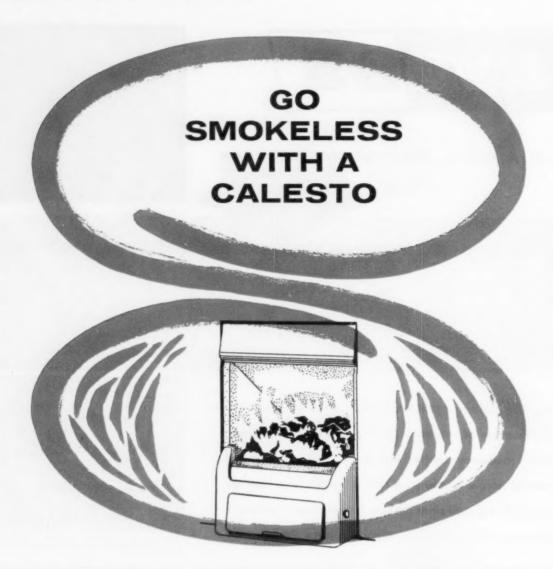
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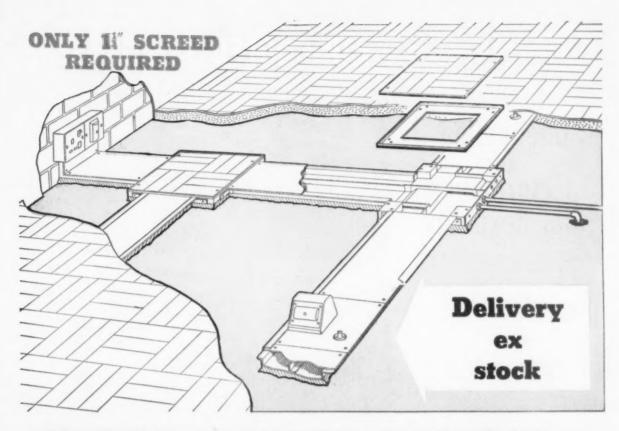
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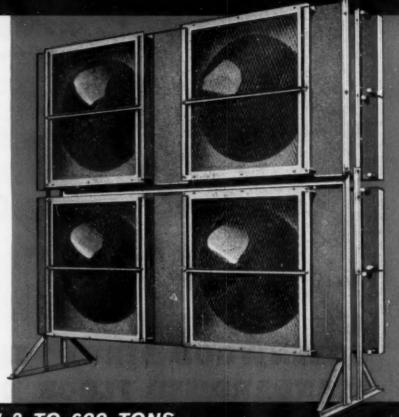
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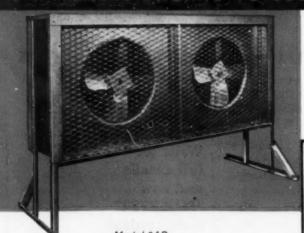
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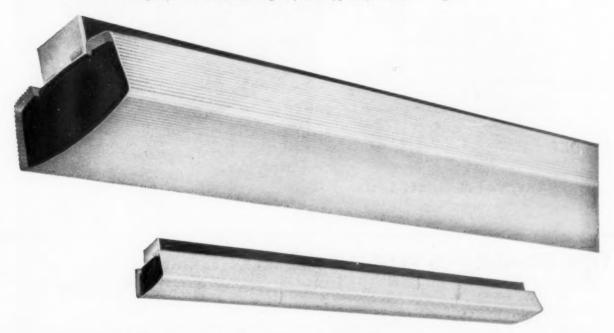
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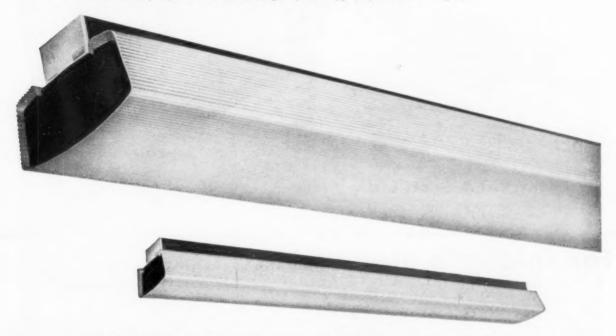
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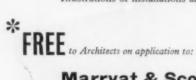
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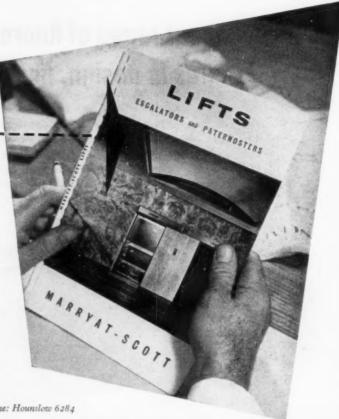
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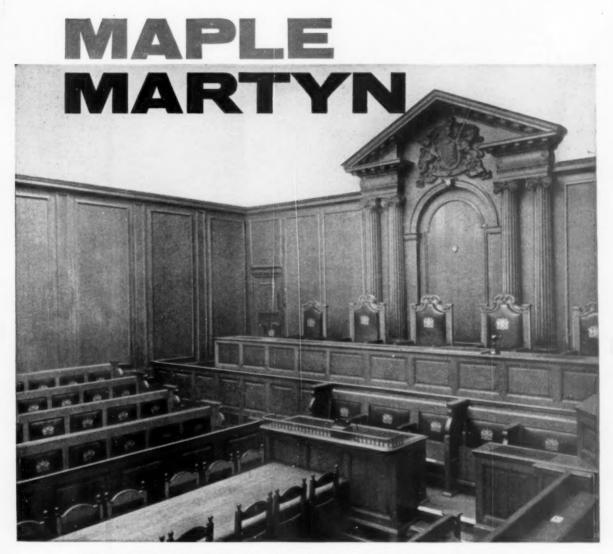
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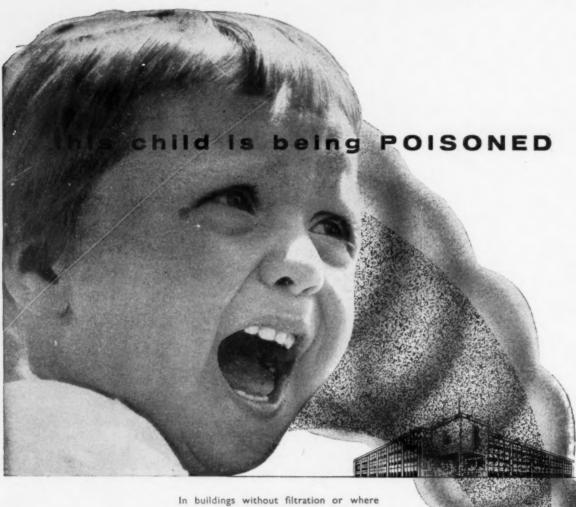
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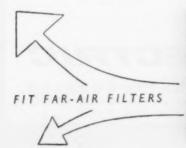


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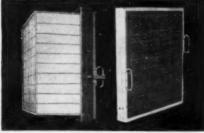
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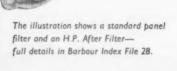
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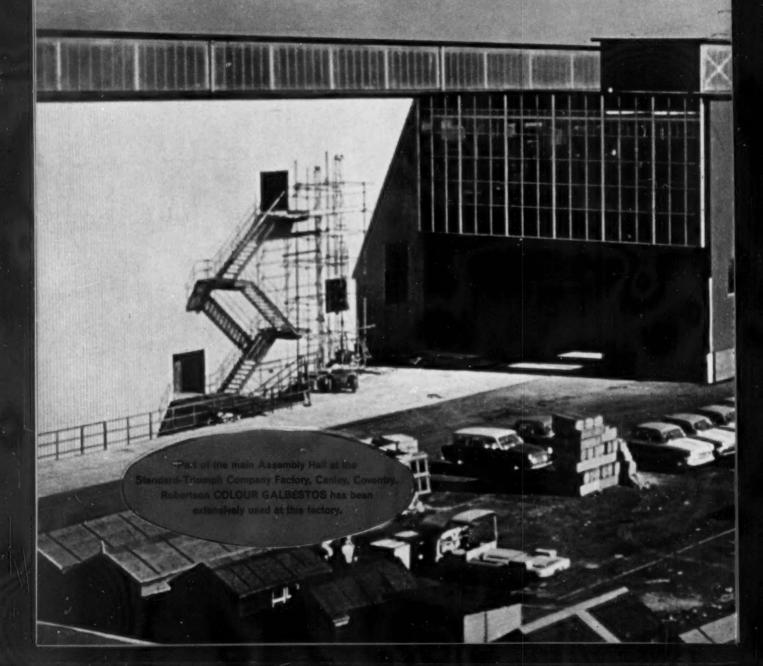


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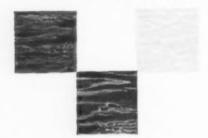
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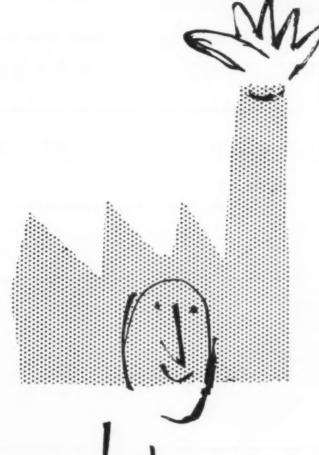
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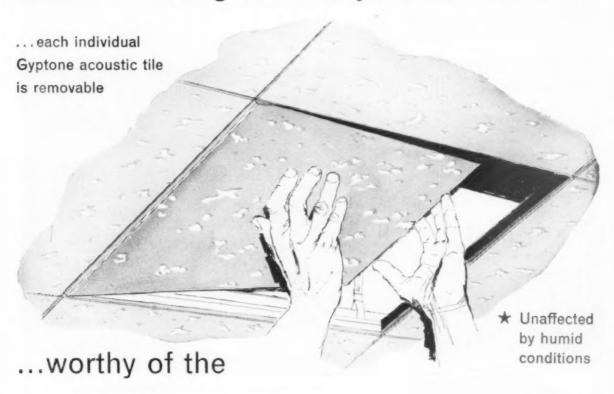
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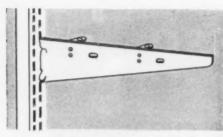
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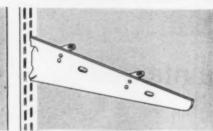
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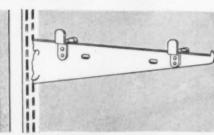


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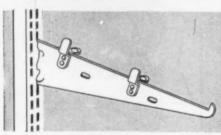


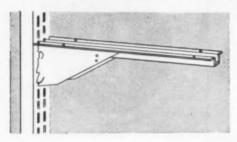
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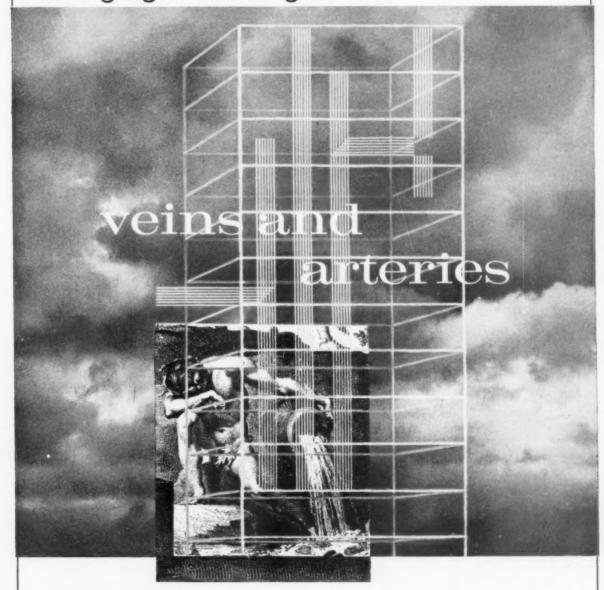
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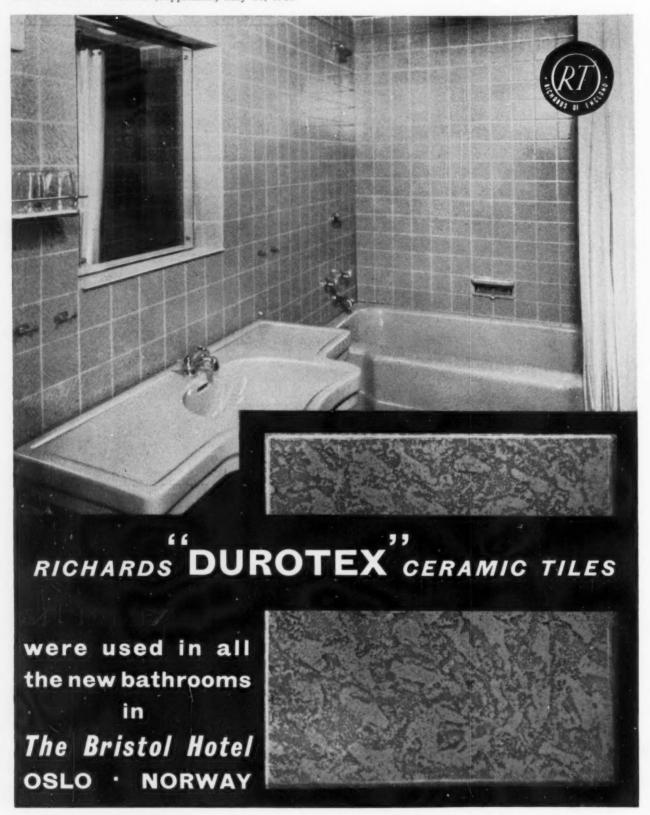
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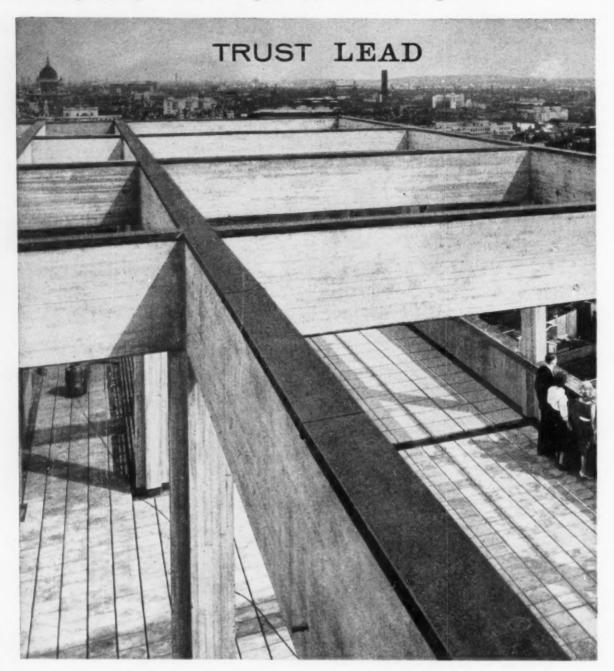


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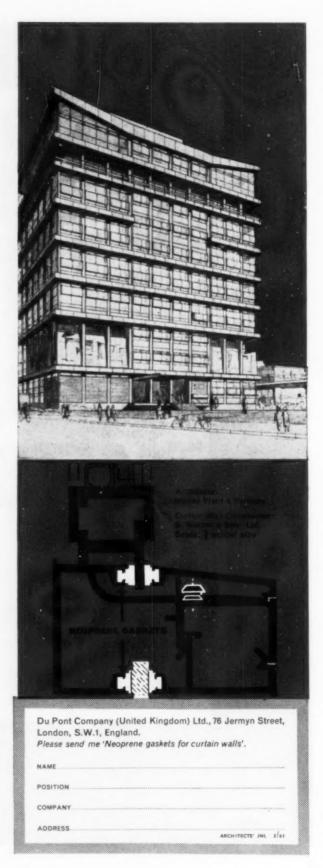
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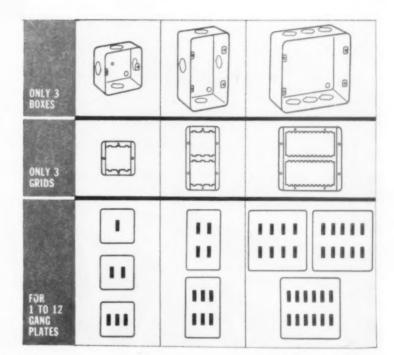


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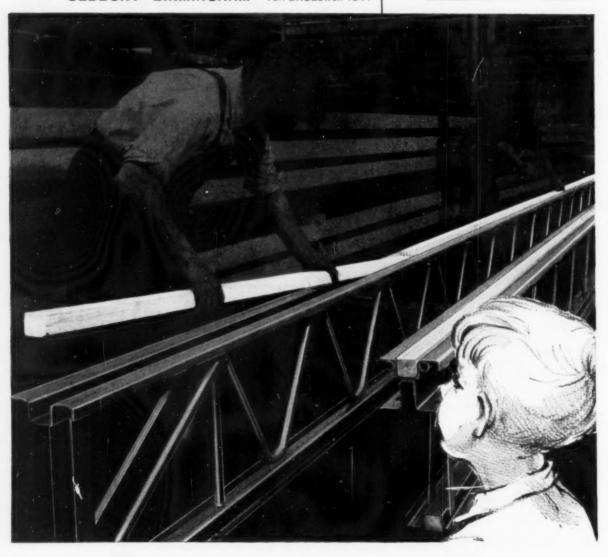
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THE ARCHITECTS' JOURNAL Supplement) May 11, 1961

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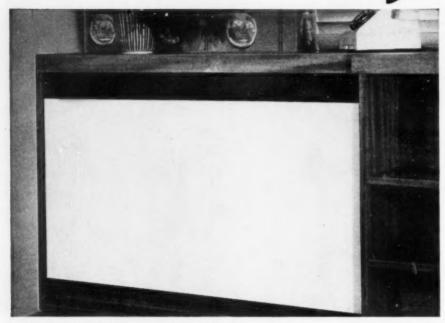
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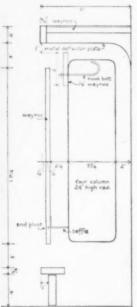
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P.6425

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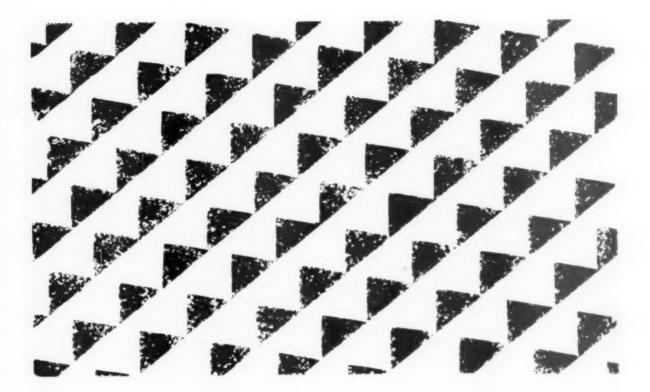
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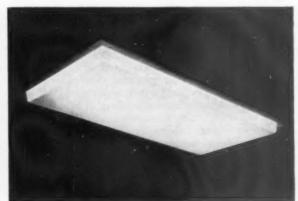
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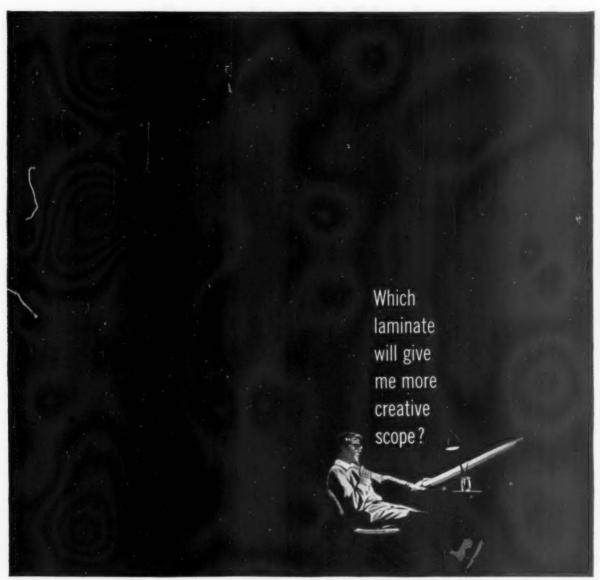


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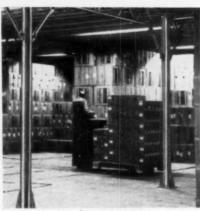
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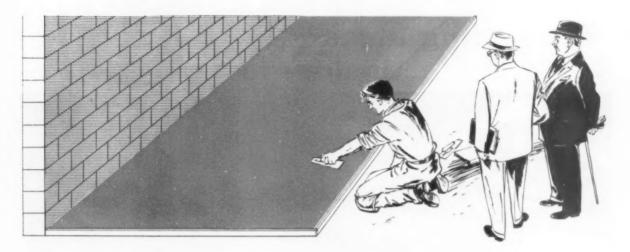
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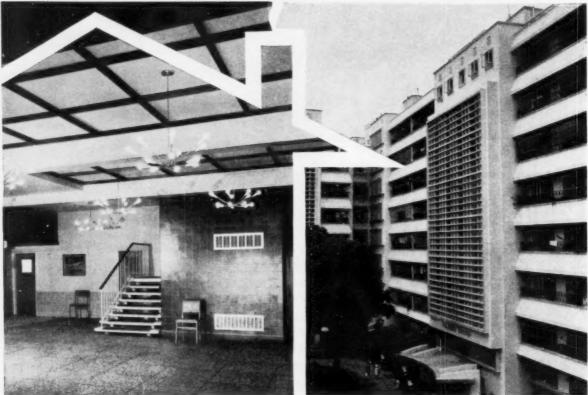
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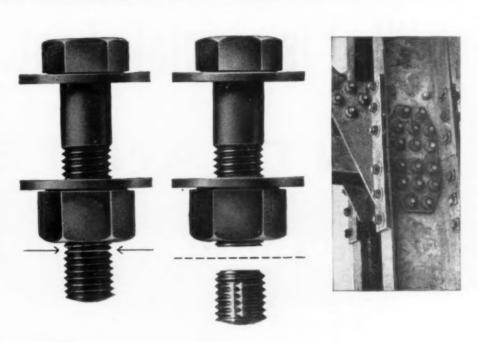
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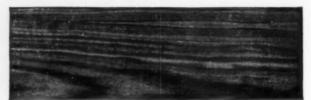
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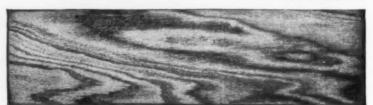


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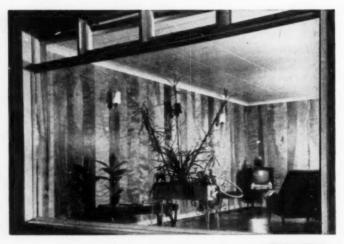
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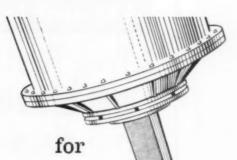




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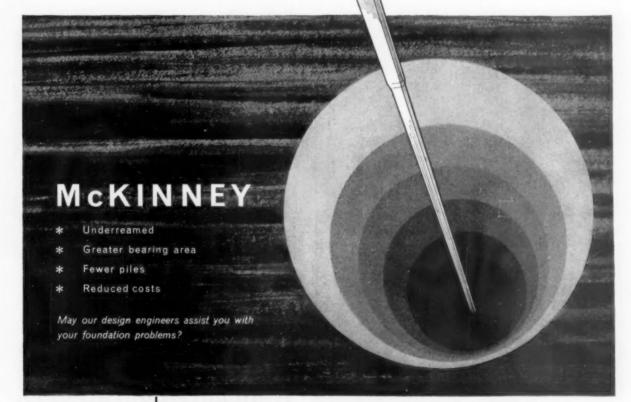


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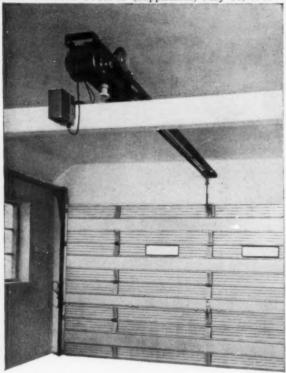
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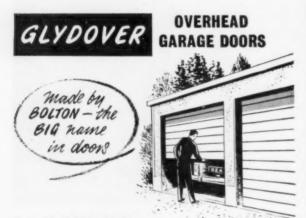
THE ARCHITECTS' JOURNAL (Supplement) May 11, 1961



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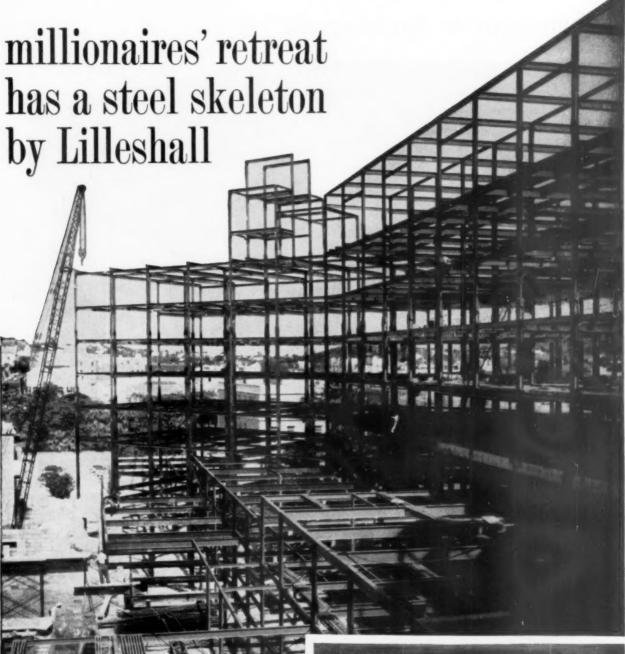
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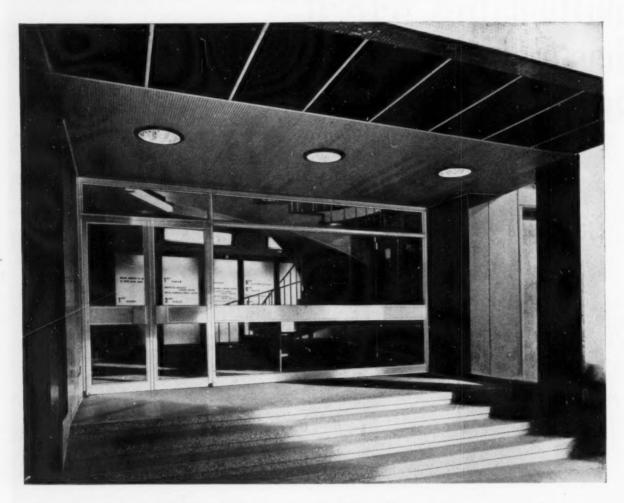
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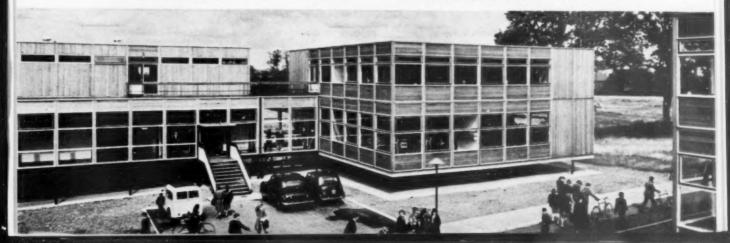
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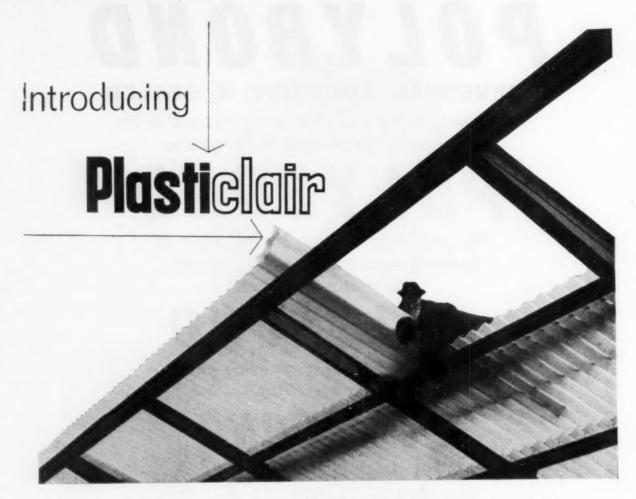
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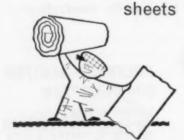


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For too long the great Spanish architect Antoni Gaudi has been regarded merely as an eccentric, and the significance of his contribution to architecture has been misunderstood. The authors trace Gaudi's life and work from his days as a student to his death in 1926. The picture emerges of a wholly sincere architect-builder who lived only for his work; we are reminded of Gaudi's constant reference to nature, his preoccupation with structural principles, his habit of making models which showed him what stresses his buildings would have to bear. Photographs, some in colour, and detail drawings, show how richly Gaudi's work deserves attention. Size 11½ ×8½ ins. 184 pages. 184 half-tone illustrations, 13 in full colour. 733. 6d. net.

The Landscape of Roads SYLVIA CROWE

In the next three years £230 million will be spent on British roads. This book clearly and forcefully demonstrates the disastrous effect on the landscape when roads are treated purely as an engineering problem. Text, drawings and photographs together show how the skills of a combined team of experts can produce roads which fit the landscape, are far pleasanter to use and do not necessarily cost any more to build.

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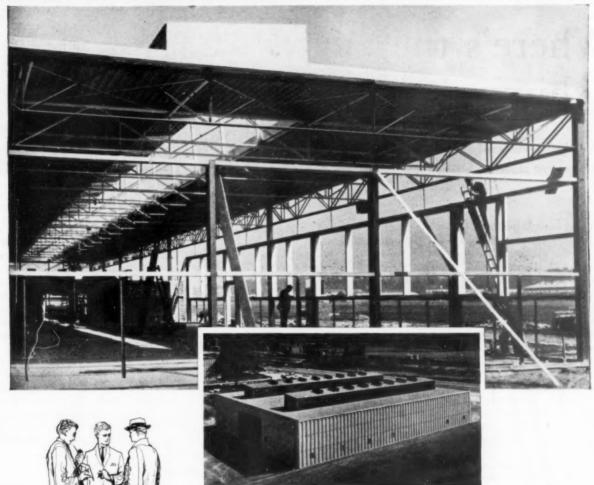
This is the first book to deal with lettering as applied to all kinds of buildings. The author is an internationally acknowledged authority. She first examines and illustrates the history and development of letter forms and then outlines a new way of looking at problems and possibilities. Her approach is illustrated by many examples of lettering in situ; and she thus demonstrates how present-day architects and designers can tackle the task of integrating lettering with all kinds of buildings. Size $9 \times 5\frac{\pi}{4}$ ins. 192 pages with 270 half-tone and line illustrations, 25s. net, postage 1s. 2d.

Architects' Working Details Volume VII EDITORS: D.A.C.A. BOYNE & LANCE WRIGHT, A.R.I.B.A.

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Architect: Albert H. Clarke, F.R.I.B.A., A.M.P.T.I.
City Architect, Bristol.

Waring and Francombe Houses, recently completed, together with Underdown House, form the largest single block in the 400-flats first stage of the Redcliffe development.

THE 400 flats of the Redcliffe Precinct development are an impressive new landmark in Bristol, standing at the very heart of a district which has been planned as the city's newest smoke-controlled area. The flats are provided with central heating and constant hot water from a central boiler-house—and the fuel chosen to fire the boilers is *coal*. But the chimney which traditionally marks the location of a boiler-house is hidden from the Redcliffe skyline. You'll see no smoke clouds drifting on the wind. For the six modern boilers which heat 6,000 gallons of water a day for the Redcliffe flats produce no smoke, although they have been burning 300 tons of coal a year, and will burn much more as the development reaches completion.

The National Coal Board is proud of the fact that coal, in competition with other fuels, was chosen for heating purposes in this major housing project. Mr. D. F. Pexton, the Board's Divisional Marketing Director, looks upon Redcliffe as a graphic illustration of how coal—properly burned with modern equipment—is proving itself to be the most economical and efficient fuel for present-day needs.

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"Smoke and grime are no longer an inevitable outcome of burning coal," he states. "The days of burning any type of coal any old how, without thought for the power wasted or the smoke produced, are gone. A lot of progress has been made since then in methods of burning, and power engineers now know that the right kind of coal used with the right kind of equipment produces maximum efficiency, maximum value for money—and does not pollute the atmosphere."

R. W. Gregory and Partners of Manchester acted as Heating Consultants for the scheme, and the Redcliffe boilerhouse is equipped with 'Suxé' burners, which are specially designed to burn the cheaper grades of anthracite. This is a naturally smokeless fuel, but all modern furnaces—from the huge chain grate stokers used in large industrial plants to the small installations burning a few hundredweights a week for flat or office heating—can burn bituminous coals without producing smoke. By controlling draughts and regulating combustion rates all the smoky gases given off by burning coals are

consumed in the furnace.

This control is frequently fully automatic—as with the Redcliffe boilerhouse, which virtually runs itself. The burners are regulated by a thermostat which operates according to the temperature of the outside air. The colder the temperature out in the open, the more heat the burners produce, and vice versa, thus assuring the tenants of the Redcliffe flats of comfortable living conditions whatever the weather. The burners also bank themselves down automatically at night and open themselves up again in the morning.

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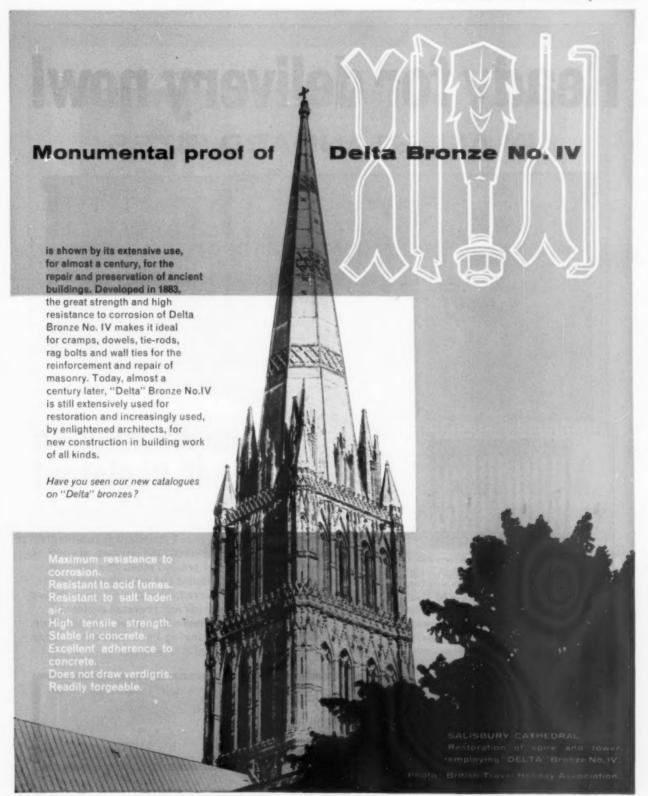


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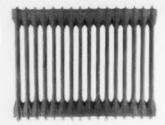
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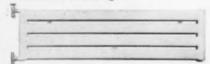
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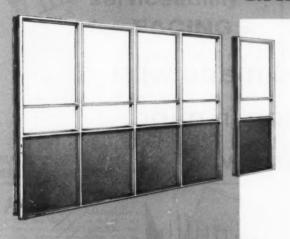


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The Architects' Journal

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NOT QUITE ARCHITECTURE

him

And The Fifteen Doors

him:

The day before he gave his talk to the DIA I rang George Him and said I'd report the event. He wondered why. He pretended to be quaking about it, his knees knocking. I called him a rascal because only his audience's knees would be knocking. "Publicity design?" he growled back. "Why should it interest the slab block redemptorists?"

"I thought a profile of you."

"Woe is we!"

"Essence of Him," I said, "Designer, illustrator, typographer, the lot, Round hole profile hanging on square peg talk,"

"That sounds confused."

"I feel confused,"

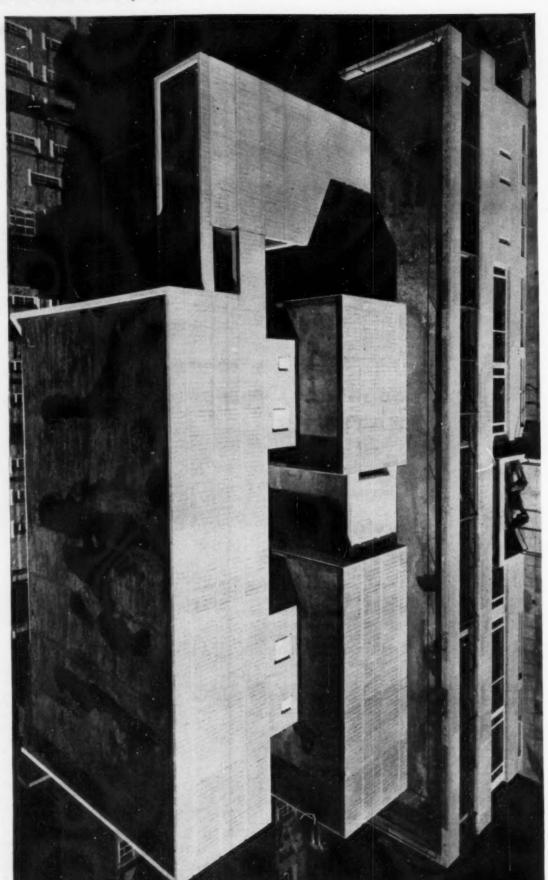
"What's eating you?"

"The essence," I said. I tried to explain. On the one hand a measure of greatness, Praise for the lovable, shambling, East European giant, erstwhile Georgi Himmelfarb (the colour of heaven), whose vast, sonorous, low-geared vocal mechanism, keyed to bottom C, made solid oak tremble. Then for the wit, brilliance and human warmth he brought to Schweppes, two governments and a recent Top People poster, not to mention irresistible long-paged re-make of Zuleika Dobson for that posh outfit in New York; and all soon to be fêted in Graphis. "Now," I said, "contra." Should I hold back? "Hit out!" Him growled.

"Well, contra. Views in public disproportionate, whimsical, wayward, iconoclastic, even allowing for love of raillery or for audience timidity. In a recent DIA Year

The Wolfson Institute

two smaller theatres, a large one for 490 students mounted on two smaller theatres below. The pattern created by the board marks has been skilfully handled as an integral element of the design. The structural consultants were Felix J. Samuely & Partners (more pictures on p. 688). Lyons, Israel and Ellis designed the Wolfson Institute for the University of London Post-Graduate Medical School at Hammersmith Hospital, and the building displays an interesting, powerful fluidity of structural expression, being dominated by the windowless shapes of its three



Book beautiful illustrations from Design magazine cut up and made funny faces of -Portrait of the Artist as a Young Saucepan. Brilliant. But no definitive utterance for a top designer, humanist and Ph.D. Ungenerous. Why mock good designers? "Confrères," he growled. "Who else should I mock? The bad are beyond hope."

"Down with the apotheosis of laughter!"

"Up with it for ever!"

"It's a kind of defeat." "It's the supreme triumph!"

"Thin Hamlet trapped in fat clown," I

scolded him. "What will the gods say of that? Him came, Him saw a lot, Him conquered little?"

Now something's eating me."

"The truth?"

"No," he laughed. "The telephone. We can't drink on it."

And The Fifteen Doors:

Him gave a marvellous talk. Both serious and comic he captivated his audience and fomented some heroic controversy. "Publicity," he said, "is a Cinderella of the design profession, yet today the greatest single influence on public taste, replacing the fine arts as the ideal image of our world. By it we would be judged. It's as old as the world. Itself neutral, it's a machine for selling as Corb's house is a machine for living. You have to make the best come out of it; give it life, validity and human quality as the old London criers were sales talk, music and enjoyment all in one. Without that extra dimension it is nothing. 'Fitness for purpose' is not enough.

"The first artists went into publicity not to shake the world, only to shake up their clients. They took publicity for granted and tried to improve it. I might feel happier propagating lofty causes instead of soft drinks, but it's no negligible pursuit to make the selling of soft drinks something

everybody can enjoy.

"A really good design synthesises the personality of the designer, his client and the product. Those are the great campaigns. But today so much is horrid and trite because it's produced at enormous expense by monster organisation with thousands of hands and a wagging tail for a head. They're afraid. They play safe.

"It won't do. All art is holy madness. It's contagious. But too often the man you want to sell is 15 doors and 15 secretaries away. Instead of people it's boards, committees, hierarchies. They don't want dreams. They want securities. So what do we get? A cult of mediocrity, sameness. dreariness. Where are the patrons with courage? As a friend of mine put it, even the tortoise has to stick his neck out to

Good stuff, Mr. Him, and plenty more in that vein. A talk that ought to be repeated to the Advertising Association, the RIBA and, for good measure, the world at large, on TV.

The Editors

BULLSEYES AND MAGPIES

NOT least of the advantages of the Bovis method of contracting is the fact that those associated with it tend to be able to take a more comprehensive and forward-looking attitude to the whole building industry than the majority. The address given recently by Harry Vincent, chairman of Bovis Holdings, and reported on page 687, while no doubt deliberately provocative, bears this out.

Admittedly, he hardly strengthens his argument by indulging in the all too familiar task of criticising the architectural profession, and in sneering at professionalism. He considers it extraordinary that the RIBA should arrange the same scale of fees for both good or bad architects. RIBA, of course, does nothing of the sort: it fixes a minimum fee only, a fee which, it reckons (when it did reckon), would enable an architect to give his client dedicated, competent, professional advice without having rigorously to measure the economic time available for the job. Architects can always charge over the minimum scale of fees. That they do not do so more often is because they have adulterated professional standards with architectural assistants, which enables architects to develop offices more famed for their quantity of work than for their quality.

One of Mr. Vincent's more important proposals is the creation of a "project supervisor," a university-trained man who, with a general foreman under him, will be responsible for everything on the building site and will work there, and not in the head office. Under him, Mr. Vincent suggests, should not be craftsmen but building workers; men "of many parts" with a "streamlined training in the general handling of modern equipment and materials." Both these changes sound good sense, and the creation of project supervisor ties up with Mr. Vincent's more familiar suggestion that architects and builders and quantity surveyors should be educated together and have more site training, so that architects become rather

more literally "head builders."

ELECTION ADDRESSES

Once more the RIBA elections approach, and The Architects' Journal invites all candidates to present a short "election address" for publication in the Al issue of June 1, the date

the voting papers are sent out.

In previous years we have asked candidates to give their views on three questions of outstanding importance to the profession: this year we invite them to say which three issues they regard as being the most important the new Council will have to tackle, and what they would press the Council to do about them, if elected.

All candidates are hereby invited to let us have their views at a maximum length of 200 words, accompanied by a recent photograph if possible, but in any case not later than Tuesday, May 23.



MORE HOME THAN COLONIAL

It is good to hear that George Atkinson has been nominated for the job Bill Allen is leaving when he takes over the AA school this autumn. As head of the architects' division at BRS, Mr. Allen has ably initiated research required by architects and translated the scientists' findings into a palatable form. His successor has had just the right sort of experience as head of the Colonial Liaison group in the same set-up. He has not only given Government architects an information service (on climatic requirements, suitable structural methods, etc.), a news letter and a series of home courses for men on leave; he has also been the man on the spot after events like Jamaica hurricanes-to advise on emergency housing and long-term replanning. Congratulations to George Atkinson and to those who made this sensible nomination.

SOLENTLY STOLE AWAY

Amenity societies are too often preservation campaigners in disguise, so it was good to read that the new Islington Society (President, Sir Basil Spence) wants "a good standard of design in new buildings and layouts." Let us hope they will keep one step ahead, so that they can offer advice before something unpleasant happens-and

not merely complain when it is too late. Several similar societies are doing good work by keeping in friendly touch with the local planning authority.

Things are a bit different, however, for societies whose job is the preservation of areas of natural beauty. The Solent Society, for instance, has already cooperated in a friendly way with planning officers and possible developers to decide where industry could go without doing much damage. But they will have to display something more like stubborn resistance than friendly cooperation to the Central Electricity Generating Board. This organisation hardly waited for the ink to dry on the Green Belt plan before proposing to use up 200 acres of the best farmland inside it. This calls for a very unfriendly society: good luck to it.

NO MORE FILTHY PICTURES

Keen architect-photographers who have followed Eric de Maré's work in the Review or AJ and his advice in Penguin book will not need a eulogistic critique of his Photography and Architecture.* The author makes it all sound fairly simple-even the developing and enlarging which most of us are too lazy to do-and then makes it all look depressingly difficult by publishing more than 100 top-flight examples of his work. This is just the book for the architect who realises there is more to photography than just buying a Leica and banging off a few dozen shots in the hope that one or two will be moderately good. Mr. de Maré believes in a larger camera and a smaller margin of risk. And he makes you believe that a little concentration could make you not half a bad photographer.

KID GLOVES OFF

Children are usually devastating critics, and it was amusing to hear one or two tearing Basildon New Town to pieces in the BBC's Woman's Hour last week. One girl was particularly scornful about the wild jumble of colours to be found in parts of the town. (These are not to be found, by the way, in the newer pedestrian housing areas now being built: it looks as if the craving for variety will not express itself in future in such violent clashes and contrasts of colour and shape.) The high spot of the

* Architectural Press 50s.

broadcast was a schoolgirl's criticism of the size of the pubs. They are so big. she said, with Lewis Carroll logic, that the men get drunk quicker.

WINDSOR SOUPED-UP

Talking of colours, some pretty odd things have been happening in Windsor where the Civic Trust's third face-lift (a successor to Norwich and Burslem) will be inaugurated tomorrow by the Queen. When I drove through the town last week I was impressed by the difference made to the place by the removal of the 19th-century Castle wall (the Castle is now much more part of the town); and I found most of the painted prettifying quite refreshing. But here and there an oddly-coloured façade stood out like a sore thumb. This, I gather, is not the fault of the Trust, which is occasionally embarrassed by one or two splashes of colour that have nothing to do with its "co-ordinated" recommendations. By tomorrow some of the paintwork will have been changed, and some of the eyesores that were still lying about the streets a week ago will have been whisked away. These include lamp-posts (replaced by bracketed wall lights) and those nasty

This 160-ft-high office block, an extension to an existing building, has just been completed at Neasden, N.W.10. Designed by Dennis E. Pugh. it makes a welcome contrast to the general dreariness of horizontal factory development along the North Circular Road. We hope to publish this building shortly in greater detail in the building study series



striped parking information posts that the Ministry of Transport seems so fond of.

DELHI-DALLYING

Will Corb go to collect his gold medal from the American Institute of Architects? While we wait to see, we might well ponder on the method by which the Institute makes its "annual" honour awards. This year the first has gone to Ed Stone's US Embassy in New Delhi, which has no more to do with the past year than another of the winners, Philip Johnson's New Harmony shrine. More to the point is the award to Johnson's nuclear reactor building at Rehovot in Israel, though like all its architect's recent work it will cause argument,

The other first-class awards went to Mario Ciampi, for a school as pretty as an Eames toy: Yamasaki, for his Reynolds Metals extravaganza; Birkerts and Straub, for a summer house like a good Cambridge third-year scheme and Skidmore, Owings and Merrill for their bland Pepsi-Cola building in New York. The remainder, which carry less prestige, went to highly-competent buildings-though the commons building for Lake Erie College (a sort of students union) deserved better. The jury commended Victor Christ-Janer for his "superb handling of interior space-interesting and unusual exterior envelope," and these are qualities few of the honour award winners could claim.

NORTHERN HIGHLIGHTS

When the northern Allied Societies meet members of the RIBA Council at the Queen's Hotel, Leeds, on the afternoon of May 27 they will discuss the two-tier profession and the package deal. Each discussion will be opened by a speaker on behalf of one of the societies, who will be followed by a free-for-all and a reply from a member of the RIBA Council. All this will be followed by a question and answer session on anything members wish to raise, and later in the evening, with the aid of three projectors, Percy Johnson-Marshall will give his celebrated and amusing talk on planning and architecture in the United States. This is something no-one eligible should miss.

ASTRAGAL



Above, Victor Christ-Janer's students' commons building for Lake Erie College, wins an AIA award for "superb handling of interior space . . ." See "Delhi-Dallying." Below, Cravasalvas village, Grisons, Switzerland, photographed by Albert Steiner, and reprinted in Eric de Maré's "Photography and Architecture." See "No More Filthy Pictures."



LETTERS

G. Grenfell Baines, O.B.E., F.R.I.B.A., M.T.P.I.

John Holt, F.R.I.B.A., Dip. Arch., Dip. T.P., A.M.T.P.I.

Arnold P. Holdsworth, F.R.I.C.S.

Robert Maguire A.R.I.B.A., A.A. Dip. and Keith Murray

P. Talbot Smith,

Director of the Universal Asbestos Manufacturing

Competitions and Innovations

SIR: As a rule we prefer not to correspond about competitions, even when feeling we have cause (maybe unjustifiable) to dispute the assessor's award.

We can hardly do this in the case of Boston, though from all that has been said we do not seem to have risen far above being the most promising of a poor vintage, "down to earth," I think you said.

A large burden of criticism has centred around a lack of "vital advance" in hospital design thought. We have no complaints about the conditions either at Boston, or at Cardiff for which we also entered. In neither case did we feel it necessary to ask a question, but critics seem to ignore that architectural solutions can and should be inspired by the purpose as expressed in the conditions and by the site of the building.

At Cardiff we discovered innovations in purpose can be costly. For example, inspired by a suggestion that the out-patient is being regarded as more important in a policy of preventive medicine, we were moved to place the teaching accommodation over the out-patients. Having a personal belief that promoting health is better than curing disease I imagined this was what the promoters required. The fact that disposing of the accommodation in this way made the planning of the ward blocks very much cleaner, giving better natural lighting and ventilation, was secondary to the main idea of suggesting a new relationship of functions

At Cardiff we also applied new ideas for preparing and serving food, usually a subject of serious complaint in hospitals. We used the principle developed for the new university village at Fallowfield where food is bought in bulk, mass produced up to the clean and cold point, and then distributed to be cooked and served in small units—at Cardiff linked to the wards.

It is possible the assessors thought these two innovations "broke the conditions." We do not know. Communication with assessors is not possible, except via an award, and as our scheme received no notice from the assessors we might conclude the above innovations were partly responsible for our failure there.

Boston was not a teaching hospital and, having learnt by experience, we did not attempt to produce innovations in purpose, but arrangements of buildings which would readily adapt themselves to a policy of maximum centralising of function combined with maximum dispersal wherever found advisable. For example, in dealing with food and wastes we considered that the principle already described and extended to the use of modern equipment enabling waste to be disposed of locally, near to where it occurs, can be used to cut down traffic. The moral seems to be—if you want to win

a competition you must stick very closely to the conditions, hoping to be successful so that any other ideas can be developed by agreement with the clients.

GEORGE GRENFELL BAINES

Preston

Hospital Competitions

SIR: As an architect concerned in the creation of hospital buildings it is with some dismay that I find the architect's winning design in a recent hospital competition being criticised as failing to produce a solution which is radical, imaginative or dynamic

It would appear that the competition system is failing, but it should be remembered that failure lies largely with those concerned in the preparation of the brief.

When conditions dictate the size of units, the tradition of nursing, the administrative procedures, then little is left to the creative architect

JOHNHOLT
President elect.
Edinburgh Architectural Association
tinburgh

Two Tiers

SIR: I have read much about this subject and probably missed much too. The surveying profession has a similar problem and consideration was not absent from the Annual Conference last year at Bangor.

As one who has practised the two tier system in a modest way for some years, I fail to see the objection to it in principle or in practice.

One must consider it from the two angles of what work a profession has available and what type of persons come on to the market and are willing to do it.

If the whole of the work in an architect's or surveyor's office must wait to be done by people who have ambitions to become chartered members of their profession and who have, therefore, obtained, with luck, a suitable general education to achieve their ambition, that profession has restricted its recruitment to a market already almost overwhelmed with offers, often much better, and which has an ever increasing demand for personnel.

There is a very estimable section of the young populace, as there always has been, which by nature, upbringing, or misfortune, does not or cannot aspire to chartered status at the time of starting a career.

Fortunately for us, there are people in this world whose ambition is to be a good clerk, nothing more; to be an engine driver, not a designer of engines; to be just a good draughtsman or technical clerk, but heaven forbid, they think, that they should ever have to take the responsibility for designing Coventry Cathedral, or taking off from drawings, or of making a valuation of a property.

To many of us these constitute a very valuable reservoir from which can be drawn loyal assistants whose ambitions will never rise generally to wishing to obtain chartered status but who will become long serving loyal members of the practice, building up over the years that store of mental knowledge which is far more valuable than the best of card index filing systems and typical detail folders.

Has it ever occurred to those who decry the "two tier" that the truly creative brain very very frequently is not the brain which is retentive of the prosaic detail, the rule of thumb, the newfangled gadgets, and such like?

A. P. HOLDSWORTH

Hull

St. Paul's Church, Bow Common

SIR: Astragal's caption to the perspective of the Church of the Holy Rood (April 6) leaves us somewhat baffled. Perhaps Astragal knows of a "stormy reception" to our "attempts to give liturgical planning a convincing architectural form" of which we ourselves are unaware. If so, we would be glad to hear of it, because the stormiest receptions we have heard of so far are the "I don't like its" of some people who have seen photographs of St. Paul's, Bow Common.

A little genuine controversy would be welcome, if only because it seems that "liturgical" is fast becoming an O.K. word applied with no understanding of the true implications. (As exemplified in the various reports issued in connection with the Liverpool Cathedral competition.)

The other thing which baffles us in Astragal's caption is our supposed "views on top lighting and glazed lanterns" which "have prevailed." Because of conditions peculiar to the situation at Bow Common. we used a glazed lantern. But the only general "view" we have on glazed lanterns is that they tend to leak.

ROBERT MAGUIRE KEITH MURRAY

London, WC1

Technical Information

SIR: Manufacturers will, I am sure, be vitally interested in the results of your inquiry into the selection and use of technical information.

However hard manufacturers may try to produce what the architect wants, and however many approving letters they may get, the real test of any publication is whether or not it is found useful in the office.

If your architect collaborators and your two new Research Fellows can give some indication of why one publication is preferred to another it would be of immense help to the manufacturer, and, in the long run, it should also make life simpler for the designer.

P. TALBOT SMITH

Watford

NEWS

RIBA

Fees for Repetitive Housing

This week the RIBA publishes, as a neat threepenny booklet, details of the Application of the RIBA Scale of Professional Charges to Repetitive Housing Work, the scale which will become operative from June 1, when the specially reduced scales of fees for State-aided housing schemes introduced in 1944 is withdrawn.

After this the normal RIBA scale of fees will apply to all repetitive housing and multi-storey flats, although there will be a substantial reduction in respect of any repetitive elements in the design, for instance, where a house or flat type is used more than once in a scheme, or has been used previously in another scheme for the same client.

The effect will be substantially to increase the fees paid to private architects by local authorities, etc., and the RIBA booklet gives examples of how the new scales will work. For instance:

4 Houses (2 types)
 Total cost of construction, £6.000

Old fee: £137 New fee:

RIBA scale fee at 7 per cent, £420 less reduction for repetition, £78

Total, £342

50 houses (5 types)
 Total cost of construction, £75,000
 Old fee: £1,367

New fee: RIBA scale at 6 per cent, £4,500

less reduction for repetition. £1,755

Total, £2,745

 48 flats in 4 blocks, 3 identical blocks Total cost of construction, £133,000 Old fee, at 3½ per cent, £4.655 New fee:

RIBA scale fee at 6 per cent. £7,980 less reduction for repetition. £1,350

Total. £6,630

The RIBA, says the statement, has been compelled to make this change, because the existing cut-rate fees are inadequate to sustain the cost of good architectural design. These fees, introduced in 1944 and only increased 40 per cent since then, take no account of the great increase in the cost of living, including the increase in the cost of running offices.

Since then, too, housing layout and design has become "infinitely more complex than it was when semi-detached houses were strung along estate roads." Some of the best housing designers have lost money on housing schemes and refuse to do any more, while the low rates do not permit them to spend the necessary time on problems of layout and design, encouraging excessive

repetition of standard types.

The RIBA has been trying to get housing fees raised in agreement with the Local Authorities Associations for many years, but even a modest increase was rejected in 1959.

The new scales do not affect private clients commissioning a single house, or the speculative builder who is also a developer because, in this case, there is no contract and the architect's fee cannot be charged on the contract price. In fact, the new fees bring speculatively built and publicly provided housing more nearly into line.

TPI

First Register of Planning Research

The first record of the research work carried out in the United Kingdom in the field of town and country planning, has just been published by the Town Planning Institute (price, 18s. 6d., 20s. post free).

Based on replies to a questionnaire sent out to ministries, institutions, universities and all bodies considered likely to be undertaking research in town and country planning or related fields (even quite distantly related), the Register will be of immense value to anyone with a particular town planning problem who needs to know what work has been done on it, an indication to all planners of research of where the field is inadequately covered, and a means of preventing overlapping of work by the fartoo-few research workers in this country. Some strange gaps in the Register were explained at a press conference last week by the editor, Mr. W. Pearson, and by E. H. Doubleday, chairman of the TPI's Research Committee.

Ministry departments have been unwilling to give details of research which they thought "too closely allied to policy to be released"; and remarkably few professional institutes are carrying on any research at all into Planning (even the RIBA had nothing to submit to this first edition).

But the TPI expect a very much greater participation by official bodies in the second edition, which will probably be issued in two years' time.

THE ZOO

Misha Black to Design Mammal House

The London Zoological Society announced last week that it has commissioned Professor Misha Black to design the new small mammal house planned as the fourth phase of a series of important rebuilding projects, the first of which, comprising new service buildings, is already completed.

The second phase, redevelopment of the middle gardens and the canal banks is now in progress, and the third, the building of the new elephant house now being designed by Sir Hugh Casson, Neville Conder and Partners, will start next year.

BUILDING BIG

Bovis Chairman Tells Architects

Architects came in for a very straight talking to from the chairman of Bovis Holdings, Harry Vincent, when he "talked aloud to himself" at a meeting of builders, architects and quantity surveyors at Darlington College of Further Education last month.

"Everybody concerned would like to see the architects take the lead in the industry," he said, "and up to this moment, in my opinion, the architectural profession has singularly failed to grasp this nettle. But it is to be hoped that sooner or later they will accept their very great responsibilities." His thesis was the impact of present-day opportunities for the building industry, and he illustrated it in his opening remarks by saying that if Darlington were typical of other towns in the U.K. "somebody has probably, for the last five years or more, had his attention quietly focusing on potential development in the town centre and main streets.

"This hypothetical person will not just be looking and thinking and planning—he will also be acting. He will be buying freeholds and leaseholds and quietly negotiating various arrangements, and out of it all will ultimately emerge a very large imaginative development scheme . . . (which) might well incorporate . . . a new town hall, public library and bus garage, all the present ones being removed and rehoused so as to create a proper precinct shopping centre."

The growth of such large-scale and complex schemes, involving much financial knowhow, as well as much larger and better organisation in the building industry had created a new situation for all involved. Only large builders could exploit it because of the capital and financial resources required, which lead "to the well-known packaged deals so often spoken of with contempt but which with all their drawbacks definitely provide for certain needs both in the public and commercial fields."

It also gave a big advantage to the big London contractors who "are now lined up very closely with developers and big building owners." Unfair to local builders, perhaps, but inevitable. "It is not just bigness—it is skill and know-how, not only in the techniques of building, materials, plant, etc., but in finance, property values, top line management—all subjects which the medium sized builder simply cannot cover properly." said Mr. Vincent. So far, he thought, "architects and quantity

So far, he thought, "architects and quantity surveyors are beginning to get a glimmering of what is going on—beginning to see that the old methods of 'contract in series'... is not necessarily by any means the most suitable contractual relationship for commercial and industrial building. This creates new relationships which the professions do not appear yet to understand."

Architects, he thought, must "be prepared to work together in the building team . . . and not try to place themselves on some higher rarefied plain because they design and the builder constructs." The RIBA, he

said, was "very little different in certain respects from any trade union organisation, the difference being . . . that it regularises fees instead of wages.

"It arranges for some extraordinary reason that all architects should receive the same scale of fees whether they be good or bad. . . . Secondly, it fixes the fees on a cost-of-the-work basis, which I would suggest requires some new thinking. Many industrialists look askance at this form of payment and why professional men should think that because they have that word attached to their name, it makes them exempt from all forms of suspicion is beyond my understanding."

"This hypothetical distinction between the so-called professional class and the rest is sheer snob nonsense," Mr. Vincent went on, "and as far as I know only exists in this form in this country."

Mr. Vincent went on to appeal for recognition, in the education of all in the industry, of the fact that building is no longer a craft industry but a science calling for "a streamlined training in the general handling of modern equipment and materials . . . based on entirely new principles with the employers."

"Architects, builders and quantity surveyors should be educated together much more and all should have much more site training," he urged. "Anyone who has done it knows the vast difference between looking down a deep hole from the top and looking at the top from the bottom. Far too few of the professions are at present given this advantage. It is psychological as well as technical." He would also like to see university graduates coming to work as "project supervisors," based on the site, not "basically office bound." It was happening in America, but prevented here by snobbery.

RICS

Lesson in Drama

Anyone who thinks that surveyors are rather dull chaps when they meet together (collective noun: an appraisal of surveyors?), should have been at Church House last week in the packed audience to hear the story of an imaginary development project presented as a dramatic reading by three members of the Institute, Arthur Green, Robert Stevens and Jack Hughes, with Cecil Elsom to represent the architect.

The team had gone to the trouble to pick a real site, the north side of Bridge Street, Westminster (opposite Big Ben), and Cecil Elsom had prepared a sketch design suitably adjusted to meet the needs of the LCC planners. Added realism was provided by a battery of telephones for conversations between architect, client, quantity surveyor and valuer as the job progressed, crisis by crisis, from the commissioning stage to virtual completion.

The main aim of this worthy little drama, a reading of a modernised Honeywood Fiktype story, was to show how the various professions concerned with a project must function as a team. This team should be appointed at the earliest possible stage, particularly so that the QS could operate fully



The Post-Graduate Medical School at Hammersmith Hospital, for which the Wolfson Institute is the first part of an extension scheme that will cost £750,000, is the only medical school in Britain or the Commonwealth devoted entirely to the further education of qualified doctors in medicine, surgery and pathology. The Institute has a reinforced concrete frame incorporating pre-stressed concrete floor and roof beams, with suspended concrete roofs and staircases. The lecture theatres which dominate the building are of box construction bearing on six main columns. The external walls, which are 8 ins. thick with a maximum height of 58 ft., are in fact deep beams and the theatres had to be supported until the roof slab was actually cast. Below the lecture theatres is a large dining area (also to be used for dances), a club room, common rooms and, in the basement, a medical engineering department. Above, general view of the front of the building: below, view of the entrance.



in giving cost guidance from the beginning. The architect was the leader of the group, but he must accept advice and criticism from the rest of the members. A clear indication was also given of the function of the valuation surveyor, the way in which he could usefully advise about the design and planning of the building in terms of its letting potentialities, and interpret and control the requirements of individual tenants. These points were made in lively and often strongly-worded banter.

Further to enliven the proceedings, Arthur Green took on the role of a highly inexperienced client, an innocent on restrictions the LCC might place on the development, who kept wanting changes to the building while it was under construction.

This allowed the rest of the protagonists to point the main lesson of the evening, the way in which they could collectively stave off disaster, as inevitable and trouble-some incidents occurred, such as cracks appearing in the underground tunnel across the site, complaints of noise from the House of Commons across the way, the client wanting to shift the main staircase, and a prospective tenant wanting part of the interior completely remodelled.

TPI TO MOHLG

Greater London is Too Small

In a Memorandum to MOHLG on the proposals of the Royal Commission on Local Government in Greater London, the Town Planning Institute points out that "For the wider problems of regional planning, although the Commission recognise them as fundamental, they appear to offer no solution consistent with their primary aims." The TPI is in full agreement with the aims of the Commission—particularly with the need to give new vitality to local government and to secure the unified planning of Greater London. But its memorandum questions whether these aims can be achieved by the actual proposals put forward.

It goes on to list the following points which are "among the problems which the Royal Commission appear to leave largely unsolved":

(i) The proper distribution and balance of workplaces and homes throughout the region.

(ii) Ultimate preservation of the Green Belt, protection of areas of special beauty and importance, and the provision of adequate recreational facilities for the region as a whole.

(iii) Improved communications, including large-scale car parking.

(iv) Location of major projects—such as airfields, sewage works, reservoirs, power stations, wholesale markets.

(v) Programming of mineral working and reclamation of derelict land.

(vi) Determination of priorities and programming of capital expenditure on other services within the region.

(vii) The need to watch changing conditions and adjust the plan as necessary.

The TPI would prefer the Abercrombie region to the basis of Greater London rather than the area chosen by the Royal Commission, and considers that "in any case the regional authority requires to be executive and not merely advisory," conceived as a regional planning authority rather than a local planning authority as at present understood.

The Memorandum recalls with approval the proposals of the Clement Davies Committee in 1949, which examined London Planning Administration and postulated the need for a regional authority with not only supervisory powers, but also, under the Minister, powers of direction and finance if not of execution, and says "Whatever form the local authorities within the region may take, the Institute considers that those concerned with town planning and traffic should neither be too numerous nor too small."

The Report then turns from these fundamental criticisms to examine the actual proposals of the Royal Commission: "The Commission," it says, "propose apparently to create a local planning authority covering 850 square miles and having within it 52 multi-purpose boroughs. The Institute fears that this will not provide a practical planning organisation. The Boroughs should be less numerous and endowed with greater resources.

"For example, the Commission's proposals divide up Central London into five boroughs—an arrangement which it is thought would be disastrous. The system of using existing borough boundaries to delimit all their boroughs would perpetuate many objectionable anomalies."

While whole-heartedly approving of the proposal to create a first class Intelligence Section, the TPI points out that "if the Intelligence Section's studies were limited to the area which the Royal Commission proposed for the Greater London Council, it would cover only part of the picture and its value would be largely lost."

In the section on roads and traffic, the proposal that the Minister of Transport should determine from time to time which roads should remain or become trunk roads" the Memorandum comments that the implications are not followed through in the Royal Commission's report: one could be that the trunk roads-the most important for planning-would "fall out of planning." "The Institute feels that it would be a fatal complication to have two highway planning authorities dealing with the major roads and that it is absolutely essential to have one planning authority, and one only, responsible for overall land use planning and overall highway planning throughout the Region."

It goes on to remark that "The Commission's proposals show little understanding of the magnitude of the problems of comprehensive redevelopment and urban renewal." "There is a serious danger of the opportunities in this field being lost as a

result of the proposed division of functions, whereby plan making is to be performed by the Greater London Council and development control is left to the boroughs." Moreover it is not clear who would be responsible for redevelopment due to new road construction—in which the Minister of Transport might have a hand.

The TPI would like a regional housing service as well as a local, borough service, and also doubts whether the boroughs would be fully capable of providing and running their own parks and open spaces. as proposed by the Royal Commission. Experience, it points out, does not suggest that crowded boroughs will be able or willing to set aside land for open spaces.

COMPETITION RESULT

Sculpture for Research Laboratory

The practice of using sculpture to complement architecture, and win prestige for the client, is growing so fast that any building without its sculp may soon be considered very bald and unconvincing.

Mullards generously offered 500 guineas to the winner of a competition to design a suitable sculpture for their electronics research laboratory at Salfords in Surrey (architects, Norman and Dawbarn), and last week Keith Godwin received the prize for a sculpture symbolic of the repulsion of similar magnetic poles and the attraction of opposites.

The design consist of twin forms reminiscent of glass insulators, or a piece of transformer switch-gear, and was chosen by Sir Hugh Casson, Sir Kenneth Clark, James Fitton and Sir Gordon Russell, and jn presenting it Sir Kenneth spoke of the problems that industrial patronage raise for the artist.

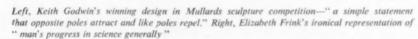
He admitted that he believed artists did their best work for themselves, or for private patrons—perhaps because commercial patrons tended to "ask for representations of 'force' or 'forward looking,' and the sculptor finds it very difficult." Nevertheless he praised Mullards for their imagination and hoped their example would be copied increasingly.

The runners up in the competition certainly justified Sir Kenneth's belief that sculptors find optimism hard to express: all produced bowed or oppressed human shapes, of which the outstanding design was Elizabeth Frink's, which she boldly explained as "intended to represent man's progress in science generally."

FRIENDS OF THE LAKE DISTRICT

Road Planning

A plea that in the Lake District, road "improvements" must be the responsibility of the planning authority responsible for the National Park, is put forward in a pamphlet, "A Road Policy for the Lake District" issued recently (April 17) by the Friends of the Lake District, and supported by a detailed account of what is happening.







there for lack of such control.

"Are millions of pounds to be spent in adapting the road system for an ever increasing volume of traffic and in the process what is to happen to the Lake District as we know it?" they ask. "A carefully considered and co-ordinated road policy decided upon now by the three county councils and approved by the Lake District Planning Board, the National Parks Commission and the two Ministers concerned is an urgent and absolute necessity if the character and individuality of the Lake District is to survive into the next century."

The small size of the area—a radius of some 15 miles with its centre near Langdale Pikes; its closeness to the large industrial towns of Lancashire and Yorkshire, and the growing volume of heavy industrial traffic from West Cumberland now using lakeland roads as through roads, combine to increase the urgency of acquiring a

policy for the region.

A traffic count at Whitsun, 1960, shows that traffic on the chief roads of the Lake District had increased 40 per cent over the previous year. This was a holiday weekend peak, but much the largest daily increase is that of heavy industrial vehicles, which are using the Kendal-Keswick road (at a computed average rate of one every 11 minutes) simply because the west coast route is inadequate and in winter the Shap Fell route is liable to blockage by snow. The Friends urge that these road improvements be made. instead of continuing the piecemeal widening and straightening of roads within the Lake District which are already threatening to change its character.

The pamphlet, which is obtainable from the secretary, Philip Cleave, 14, Princes Street, Ulverston, Lancs, goes on to give details of what is happening to the other main roads in the district, to appeal for the leaving alone of the minor roads, and those running up to valley heads and points out:-Although the Lake District is a National Park, the Lake District Planning Board has in fact no effective control over road policy. There is here a separation of functions between the planning authority and the highway authority which seems difficult if not impossible to justify in logic." The Highway Committees of the three county councils concerned have a system of "consultation" with the Planning Boardwhich works so well that the Board has sometimes been asked to approve alterations after road works have started. "It is one thing to be invited to comment on the details . . . quite another to exercise real control of road policy."

TEACHING METHOD

Seminar at Cheltenham

Thirty-three members of staff from 21 schools of architecture met in Cheltenham from April 10 to 14 to discuss "Teaching Method."

The Seminar was sponsored jointly by the RIBA Schools Committee and by the Gloucestershire County Council Education Committee, and held in the Pittville Pump Room, which houses the School of Architecture of Gloucestershire College of Art.

Residential accommodation was provided in a newly-built students' hostel five minutes' walk from the School. All the formal papers and some of the discussion were recorded on tape.

Denis Clarke Hall, opening the seminar, stated that 1 per cent of the registered architects in this country were involved in teaching and that the future of architecture depended to a great extent upon this section of the profession.

The speaker outlined the basic principles of the student's training emphasising the need for a realistic application of his rapidly developing technical vocabulary.

A paper on "The calibre of the sixth-former" was read by E. W. Maynard Potts, headmaster of Hendon Grammar School and a member of the Board of Architectural Education. He said that the average sixth-former was not primarily interested in selecting a top-salary profession, but was anxious to choose a worthwhile and responsible career, in which he or she would make a useful contribution to the community ("idealism must find an outlet"). Closer contact between schools of architecture and their adjacent grammar schools

was to be encouraged, not merely for recruiting purposes, but in order to establish in the mind of the sixth-former an awareness of the place of architecture in our life. In dealing with "Some Psychological Considerations." Ian Michael, a lecturer in Education at Bristol University, stressed the need for constant sensitivity to the varying response from individual students, and the need to "encapsulate" material in a presentable, digestible form. ("Stripping down to bare essentials does not help the learning process.")

Mr. Michael subsequently delivered a paper on "Teaching Technique" in which he commented on the respective merits of the methods of the class, the seminar and the discussion group, in all of which the activity of "question and answer" was an integral part. ("Questions to guide the student into self-knowledge—not to test what he knows.")

After some consideration of formal lecturing technique, three members of the Seminar volunteered to give short, five-minute papers, which were taped, played back and subjected to extremely candid criticism—a most healthy and useful exercise.

DUARY

Annual Discourse at the RIBA, by Alistair Cooke, 6 p.m. MAY 17

High Oxford Street: SPUR Exhibition of drawings illustrating the principle of multi-level circulation as applied to Oxford Street, by Norah Glover and L. Rudowski of D. Rigby Childs & Associates, at the Housing Centre, 10 to 5.30, Mondays to Fridays.

Until MAY 26

Pestalozzi Children's Village: Exhibition of models and drawings, the Building Centre.

Until MAY 20

An afternoon was devoted to a series of papers on schools of architecture—"American Schools" by F. I. Jenkins, "German Schools"—a tape recording made by D. Thornley, and "The School at Ulm," by M. Goldring.

Short papers on "Teaching Method in relation to Architectural Design" were given by Dr. D. Buttle, J. D. Carnegie and A. C. M. Forward.

ABT

Two Tiers and the Building

In his presidential address to the Association of Building Technicians on March 25, Kenneth Campbell concentrated attention on the growing importance of teamwork in the building industry, the "two tiers" controversy and urban renewal.

Admitting that the membership of ABT has been static, he said that the basic idea of the association, "the identity of interest of all building technicians, is correct now and will be still more so in the future as building becomes more complex and more a combined effort." He thought the association ought to be studying the problem more closely.

The growing importance of teamwork in building, under the leadership of the architect, led him, said Mr. Campbell, to "that which has unfortunately become notorious under the misleading name of the 'second tier' architect. I do not believe that the Oxford Conference or those who have been working on the problem since ever intended to divide the profession into Upper and Lower Houses.

"The heart of the question lies in the problem of the correct form in which the architectural solution is translated into terms of what I would call workshop drawings, the relationship of specialist information on structure, heating, lighting, ventilating, plumbing, power, and so forth, the synthesis of this work in terms of economics and finally the control of the work."

Mr. Campbell went on to speak feelingly on the problem of urban renewal. "If any of us have any illusions that the Government is in any way concerned at the rapid deterioration in our cities, our countryside and round our coasts, a moment's view of the Ministry's correspondence with the TUC, for instance, on this subject would surprise them," he said. "The limitless and oblivious complacency expressed . . . is unbelievable. The Government in its refusal positively to plan the economic shape of the nation seems to think that it lives in the America of the nineteenth century with limitless Western territories available for expansion. So we are destroying it. In National Parks, remote coasts, in the quiet places, the oil refineries, the nuclear power stations, the open-cast ironworks, the overhead power lines, spread themselves as our memorial." It would be pointless to fulminate about all this, he said, if there were no alternative but "There is room in all cities, towns and villages of Britain to house all the population without expanding their boundaries a yard," were it not for the soaring cost of land and the "quite astonishing" density pattern, which treated places like Balham and Catford as "rural retreats to be developed at 20 houses to the acre."

TROUBLE AT DIGSWELL

A Tale With a Moral

Slowly the mills of the AJ have been grinding up a story, launched by a letter in the New Statesman last month and taken up with avidity by the Sunday pop-press, of how a group of artists and sculptors found themselves up before the Consistory Court of the Diocese of St. Albans and paying £130 or so costs for the privilege of raising objections to the expansion of Digswell's 12th century church.

Finding a notice on the door of the small church of St. John the Evangelist, of plans for a large extension, with "an invitation to dissenters to protest to the Registrar of the Diocese," a group of tenants at Digswell House next door, which overlooks the existing churchyard, protested against the plan, but found themselves attending not a public planning inquiry, but the consistory court in which they were unsuccessful litigants against the local vicar. Their advice was: don't accept invitations to raise objections to plans if you see them pinned to your local church door.

Tracking down the facts was not easy: nobody in the Church of England appears to read the New Statesman and attempts to get any official comment on the Digswell case from the press officer of the Church Commissioners (where a secretarial voice said coldly, "We do not court publicity" this seemed the oddest sort of reaction from a press office that one could find), or the Committee for the Care of Churches, failed utterly.

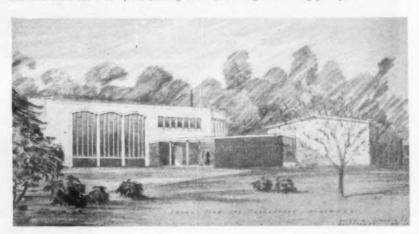
Finally, however, a jolly man, commenting "Wrong beam, I'm afraid," put us in touch with the Registrar of St. Albans, who coldly pointed out that the proposed Digswell church extension had gone through all the necessary planning committees last year. the facts had been given in the local press. and if the Digswell artists first knew of the plan from a notice on the church door, that only proved the superiority of church law in providing for due publicity for its building schemes (even if too late to enable anyone to stop them). He put us on to the architect concerned, John Glanfield, an active parishioner of St. John's, and the vicar, from whom we got respectively the plans and the "client's brief," along with the assurance that they minded much more the tearing up of St. John's churchyard and the large expansion required, than the nonparishioners of Digswell House who only liked looking at it out of the windows.

The fact is that the parish of Digswell has expanded enormously since Welwyn New Town flowed over the hill and began to swamp the village; the vicar has recruited support from the new townsfolk with such success that there is sometimes standing room only at St. John's.

Although a small church has been provided



Above, the church at Digswell as it is at present, a 12th-century building with 14th-, 15th-, 18th- and 19th-century accretions. Below, the accretion to end all accretions, an extension twice the area of the existing church, covering the existing graveyard.



elsewhere in this part of the town, the parish council wanted to keep St. John's as the parish church, and could not provide the "manpower," said the vicar, for a new, larger church elsewhere as well. Hence the decision to extend St. John's, to an extent that reduces the old church to a side chapel and swallows the present churchyard (though Mr. Glanfield claims to be preserving everything of interest inside).

While understanding the desire of the parishioners to keep St. John's as their parish church, one can't help questioning in what sense they are keeping it when they do this to it. The church, though a good deal altered already, "completely ruined in the last century," said the vicar (a bit self-righteously we thought), merits a page in Pevsner's Hertfordshire "Buildings of England" series, and with its churchyard was the nicest thing in Digswell, the sort of building a new town needs as a link with the past, recognised and enjoyed by the ungodly as well as the parishioners.

It would have been fairer, too, to the architect to ask for a new church instead of an extension of inevitably wrecking proportions. The parish may have its financial problems, but the Church of England is not

so penurious that it cannot be asked to take these things into consideration and help raise the money to pay for them.

But there is a moral in all this for architects—the need to be much more alert to rebuilding and demolition plans in their own neighbourhood than they often are. News of such projects is usually published in a small way in the local press, but it has to be watched for, or there will be no outcry, until it is too late for anything but wringing of hands.

It's no good expecting planning authorities to organise better publicity for new projects; naturally they hope that all will go through quietly, so those who want to protect ancient or beautiful buildings from attack have to alert themselves. Every architect his own watchdog.

The Digswell Church is by no means the first building that deserved to be defended and has been lost by default because nobody protested in the right place at the right time. Meanwhile I think one must accord the vicar a human though irrelevant last word: "Really, you know," he said, "Digswell House is the biggest eyesore around here."

s. w.

NEW CHAPEL Exhibition Road, London, S.W.7.

Church of Jesus Christ and Latter Day Saints

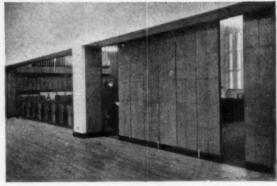


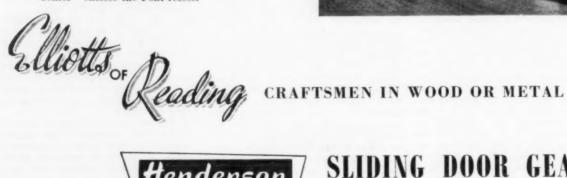
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THE INDUSTRY

This week Brian Grant describes glazing and glazing data sheets, an oil-fired boiler and a solid fuel fire.

Patent Glazing

The Patent Glazing Conference has started the publication of a folder of technical data. The first sheets deal with aluminium alloy and lead clothed steel glazing bars, other sheets will deal with galvanised steel bars and flat roof lighting. The object of the conference is to assemble all the essential data on patent glazing, a very worthy object. It must be added that the folder would be of greater use if it were to the A4 size, and properly classified. (The Patent Glazing Conference, Burwood House, Caxton Street, London, S.W.1.)

Sliding Windows

Hopes are now making in this country a series of sliding windows in aluminium frames. They are based on American designs by the Gridwall company and are being marketed under the trade name of Glide. The glazed units slide on nylon rollers with stainless steel spindles, and both are double weatherproofed all round by vinyl plastic extrusions set inside their frames: meeting stiles interlock on a further plastic extrusion. Light and heavy duty versions are made, the former with each leaf up to 5 ft. square, the latter up to 8 ft. high by 6 ft. wide each leaf. The windows can be joined by mullion and transom sections and can also be arranged to accommodate double glazing. Standard finish of the aluminium is as extruded, but it can be anodised at extra cost. (Henry Hope & Sons Ltd., Smethwick, Birmingham.)

Oil-fired Boilers

The Potterton AOA 42 is a domestic oilfired boiler with a maximum output of 42,000 B.Th.U. per hour, and is suitable for the average house. It is fitted with a new type of pressure jet burner which is claimed to be very quiet. It has a selfregulating damper at the burner air inlet which deals with a wide range of draught conditions, reduces the cooling of the chimney gases and does away with the need for a draught stabiliser at the flue outlet. The standard boiler costs £120, and there is also a small bore unit with the same rated output but incorporating a pump and lockshield valve inside the casing: this costs £158. The boiler has cast iron waterway sections and is housed in an enamelled sheet steel casing. Fuel is domestic kerosene. (Thomas Potterton Ltd., 20 Buckhold Road, London, S.W.18.)

Windows for Housing

Most architects will be familiar enough with the Carda window. A less expensive type is now being produced for domestic use, and it can be hinged top, bottom or sides, or else horizontally pivot hung. A simple form of double glazing is used, and glazing is carried out at the factory so that the window arrives on site ready for fixing. The air space between the glasses is 14 in. and a desiccant capsule is inserted at the factory, the manufacturers claiming that it will last for a considerable time and that anyway it is easy to replace. Prices start at £6 19s. for a 251 by 401 in. window and rise to £10 3s. for a 48½ in. square version. (Holcon Ltd., 21 Mackenzie Street, Slough,

Solid Fuel Fire

The Burnall underfloor draught fire, an addition to the Baxi range, is designed to burn all kinds of solid fuel and to replace the Baxi coke and raised fire models. The Burnall is made with a lift out ash box. outside ash pit, both of which need emptying only once or twice a week, or the deep ash pit which needs emptying only at intervals of two or three months. It is made in five widths from 16 to 24 inches. and the deepening bar is a standard fitting. Price of the 16 in. version is £11 9s. 6d., and a set to convert previous models costs

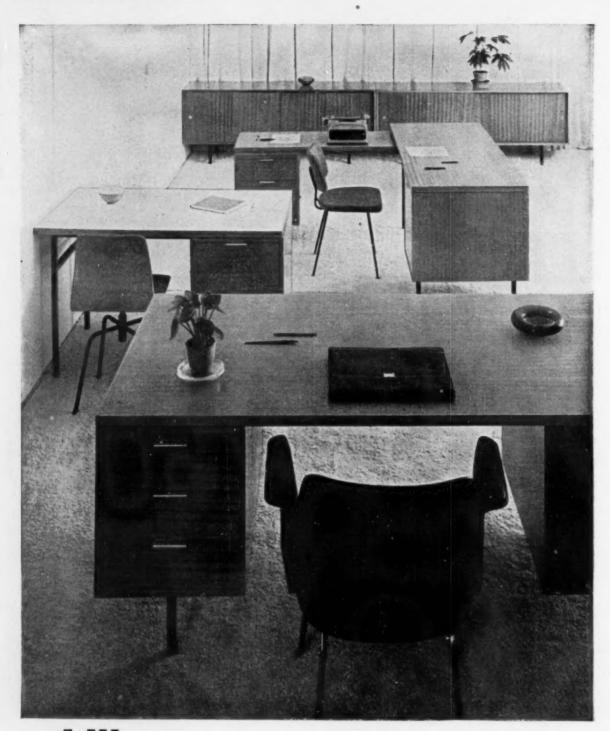
£2 8s. 3d., this amount qualifying for grant in new smoke control areas. (Richard Baxendale & Sons Ltd., Bamber Bridge, Preston, Lancs.)



The Potterton domestic oil-fired boiler

Burnall underfloor draught fire





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19 CONSTRUCTION: DETAILS shielding with high density concrete

The increased use of gamma and x-ray equipment has raised for architects the relatively unfamiliar problem of how to prevent the rays from this equipment from passing to adjoining rooms. In this article the author, D. A. Stewart, a consulting engineer who has specialised in this subject, discusses the problems which arise when in situ concrete is chosen for this purpose.

This article is concerned, not with the assessment of the thickness and density of the shield to be provided (for this will be explained by the client) but with the technical problem which arises from providing the usual degree of shielding. Also it is limited to shields against gamma and x-rays and therefore is not concerned with the attenuation of neutrons and with the consequent need to keep the hydrogen content up.

Method of construction

There are three methods of constructing a shield of concrete. It can be made of plain or interlocking blocks of fairly large dimensions. It can be made of small blocks of brick proportions. Lastly, it can be made of cast in situ concrete. The first of these methods is seldom used as it involves masonry techniques. Only the second and third alternatives, therefore, are dealt with in this article and the second only briefly.

Use of precast concrete blocks

Precast concrete blocks will usually be delivered to the site by some specialist firm. Whatever the type of block used, they must be laid so as to provide no free path between the radiation source and the outer face of the wall. They will usually be dry laid and it is important to establish the position of the source of radiation as regards distance from the wall and its height above the floor. While the rectangular prism type of block can be used successfully at certain levels in respect to the source, it is desirable to use blocks which can bond mechanically in two planes at other levels. A crosssection of the latter type is shown at right.

It will be seen that if blocks of the above shape are taken to such a height in forming a wall, a ray travelling from the source at 30 deg. to the horizontal strikes the wall at a joint between two blocks and has a free path available to it through half the block thickness in going, but must pass through h thickness in leaving the block instead of 1/2 $\sqrt{3.h}$ =0.865 h. It will be evident that for direction radiation, rectangular blocks which have horizontal joints would be quite satisfactory above or below a line making an angle of 25 deg. with a plane passing horizontally through the source. It should be remembered, however, that the same problem of correctly formed joints arises with radiation at various angles with a vertical plane passing through the centre of the sources and normal to the shield.

In some cases where precast blocks are employed a high density mortar is used in which to lay them. Great care must be taken to avoid forming "holidays" in the mortar, i.e. the mortar film must be continuous in all planes.

Use of in situ concrete

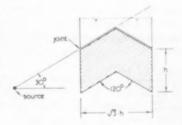
In general the type of in situ concrete to be used will depend on the intensity of radiation to be shielded and on how much space is available. This is explained by reference to Table 1, below which gives typical shield thicknesses for three categories of concrete assuming that 1 metre of normal concrete will give adequate attenuation.

Table 1

Normal concrete	bulk density of concrete 2:36	concrete per cu. ft. 147	thickness in cms. 100	
Barytes concrete Iron shot aggregate concrete	3·7 5·6	350	64	
POURTELS.	0.0	220	7.00	

Normal concrete, depending upon the aggregates employed and the mix design, will range between 145 and 155 lb./cu. ft. in the freshly compacted state, Barytes concrete will vary from 220 to 235 lb./cu. ft., while iron shot aggregates can produce densities as high as 385 lb./cu. ft.

Fig. 1. Section through precast block



technical section

The prevention of cracks is particularly important in shielding work. The cracks which develop in maturing concrete frequently result from overall shrinkage or sudden concentrations of stress. Shrinkage results from loss of water by evaporation or because of temperature changes. In the process of hardening, the chemical reaction between the cement and water increases the temperature of the whole mass of newly placed concrete and, with this rise in temperature, the concrete tends to expand. As time goes on the chemical action decreases and the concrete starts to cool and at the same time, contract. As contraction due to cooling proceeds, the concrete is also losing water and drying shrinkage begins to add its quota to the total shrinkage. This total shrinkage can induce large forces within the concrete resulting in the formation of cracks. Cracking in mass walls is largely caused by the excessive use of cement and water: it is, therefore, advisable to use a reasonably lean mix, designed principally with workability in mind, at a low water content per unit volume of concrete. For instance, a 6:1 mix by weight at 0.5 w/c ratio will contain more cement and water per cubic yard than a 7:1 mix at 0.56 w/c

Cracking may be controlled or at worst limited in other ways. Firstly, by introducing reinforcement into the wall to resist the shrinkage stresses. This is an added cost and is frequently unnecessary if another solution is sought. Secondly, by casting the wall in such lengths that the total shrinkage is limited. When this latter method is adopted, sufficient time must be given to allow the first section of wall to shrink before the immediately adjacent section is cast against it.

Abrupt changes of section, such as where a column is cast integrally with a wall and extends beyond it, can produce a concentration of stresses and hence cracking. The same effect can occur at the corners of a cell.

The formation of joints between new and old concrete cast in situ must have special attention. The jointing face of the old concrete should have been washed down so as to expose the aggregate while the new concrete should be made directly on to the old concrete when the surface of the latter is in a dry state and without the application of a mortar layer, since this will shrink more than the concrete itself as a rule.

Where in situ concrete is to be placed the method of compaction must be clearly specified. The compac-

Fig. 2. Illustration of side effect

additional void space resulting from mould width not being a multiple of the sphere diameter

tion of normal and medium density concretes offer little difficulty, but high density concrete can be difficult and laborious to handle and compact. Nowadays internal vibrators are almost the invariable means of doing this, for hand compaction would require the concrete to possess far too high a workability and hence too high a water content to reach the required freshly placed density.

The use of vibration poses two problems. The first concerns the vibration itself. The normal internal vibrator is made of steel which is of virtually the same density as the iron shot aggregate. The density of the vibrator head itself is, however, considerably less per unit volume than that of the solid metal owing to the internal space in which the out of balance mass rotates to produce the vibration. There is, therefore, a tendency for the vibrator to be "floated" out of the concrete as it compacts under the action of the vibration. In general, the mass of the vibrator is small in relation to the mass of the high density concrete; its effective range in the concrete is small, therefore, unless the kinetic energy generated by the vibrator is large. To make this point clear, consider a glass marble of, say, 1 in. diameter striking a steel ball of the same diameter. Unless the glass marble is travelling at quite a high velocity, it is not going to shift the steel ball far. Any vibrator used for compacting should, therefore, have a high rotational velocity.

The second problem concerns the choice of mix. If a hand compaction concrete, even of quite low water content, is subject to vibration for a sufficient time to eliminate the air voids to a value of 1 per cent or less, it will show quite definite signs of mortar segregation. This is most undesirable for two reasons.

- The density of the mortar which contains the bulk of the water in the mix is always appreciably less than that of the whole concrete.
- 2. The original mix contained too much mortar, i.e. excessive water, sand and cement. This excess cement and water will cause shrinkage and other undesirable characteristics as, for example, the development of an unnecessarily large amount of heat during the process of hardening.

A mix whose ingredients are correctly balanced will not segregate under vibration even when the period of treatment is greatly extended beyond that required to bring about normal compaction. This means that when the viscosity of the mix is reduced by the vibration the whole of the coarse material does not sink to the bottom of the mould and express from its mass the excess fine materials. What should happen, and does happen in practice when the quantities in the mix are correctly proportioned, is that as the coarse aggregates close up, the mortar associated with them flows into and through the void openings between the stones so as to fill completely the interstices in the compacted coarse material. If by mischance or through an error in the mix design the mortar content is too small then coarse aggregate segregation will develop. This effect is easily observable and the matter can at once be rectified, whereas mortar segregation, which is as dangerous, may not make itself evident until too late. It is, therefore, recommended that a gap-grading rather than a continuous grading is used in the design of concrete mixes for shielding. The argument in favour of gap-grading is expanded below.

Specific Surface and Specific Gravity

The workability of the concrete must be matched with the available compacting effort and the shape and dimensions of the section in which the concrete is to be placed. This is a matter of experience, both of concrete itself and of the contractor's ability to handle it, although experience with normal concrete does not give an infallible guide to the probable performance of concrete made from aggregates of high specific gravity. For instance, if the specific surface of the aggregate is calculated upon a weight basis (cms.2/ gm.), which is usual, the specific surface of our 1 in. glass marble with sp.g. 2.6 will be 1.815 cm.2/gm., whereas the steel sphere will have a specific surface of 0.621 cm.2/gm., the sp.g. being 7.6. It will also be obvious that, as the friction on a particle moving in a mass of concrete is proportional to its surface and the gravitational force acting upon it, the steel sphere will sink faster than the marble in a medium of fixed viscosity. This becomes a matter of some importance when the sp.g. of the viscose medium is much lower than that of the coarse aggregate as is the case in an iron shot concrete in which the mortar may be a wet cement paste having a sp.g. of about 2.0. Concretes, whatever may be their purpose, are made from three ingredients, aggregate, cement and water, of which water has the lowest sp.g. as a rule and cement has the highest, approximately 3.15. In concrete made with either Barytes or iron shot, or a combination of both, the aggregates have a higher mean specific gravity. If then we find that a normal concrete having an aggregate/cement ratio of 8:1 by weight provides a satisfactory density of 150 lb./cu. ft., it would be logical to employ a higher a/c ratio in the case of the Barytes and also for iron shot. Table 2 gives a/c ratios based on the specific gravities of the aggregates.

Table 2

TEPEN DE		
Aggregate	Sp.g.	a c ratio
		by wt.
Normal	2.6	8.0
Barytes	4.1	12.6
Iron shot	7.6	21.5

"Side Effect" in Narrow Spaces

This table raises an important point which is not often considered. It is good concreting practice to make use of the largest size of aggregate possible. Therefore, when space permits, 11 in. maximum aggregate should be used because a lower water content is then effective in producing a particular workability than would be the case if a finer material, say 1 in., was used. Where normal concrete is used for shielding, sufficient space has to be available to provide the correct wall thickness, say, between 2 and 5 ft. There is, therefore, ample room for 11 in. aggregate to move under vibration into a highly efficient packing arrangement having minimum mortar voids. Where space is limited as in a building already in use a very much slimmer wall must be produced, say about I ft. This narrower shutter condition means that " side effect" must be taken into account in calculating the packing density of the coarse aggregate if the 11 in. maximum size is to be maintained.

Fig. 2 illustrates what is meant by "side effect." Spheres have been used in order to simplify the example but the same principle of packing applies in a somewhat lesser degree in regard to irregularly shaped particles. The side effect gives rise to additional voids developing in the particle assembly in the immediate neighbourhood of the container walls which would not occur in an infinite packing. The fact that the aggregate is graded does not alter this perturbation effect except in degree. Some improvement in the density of packing can be achieved, however, by reducing the mean size of the coarse aggregate to conform more closely with the width of the mould or formwork so as to divide it into an integral number of parts. In theory the same effect could be produced by increasing the mean size of the aggregate but this solution leads to complications in practice. Where, for instance, the use of +11 in. might prove troublesome a better balanced concrete could be produced by dropping the maximum aggregate size to 1 in. but at the same time reducing the material in the & in. to % in. range, thus limiting the decrease in the mean particle size. Whatever action is taken it is probable that the a/c ratio will have to be reduced in order to maintain an acceptable workability. This reduction in a/c ratio will apply particularly to iron shot where the maximum diameter may be less than & in. Therefore, the a/c ratio shown in Table 2 of 21-5 may have to be reduced to as low as 18 or 19.

The Problem of Voids

We will now consider the packing of aggregates, the voids in their assemblies, their individual volumes and void openings, for without some knowledge of these matters any mix design attempted will be a somewhat haphazard venture.

If a container, which is large with respect to particles considered, is filled with aggregates in a consistent manner the so-called bulk density of the aggregate can be calculated by determining the weight of the contained aggregates and the volume of the container.

Weight of aggregate

Bulk density = Volume of container

The bulk density provides a measure of the voids in the aggregates but only if the aggregate's specific

technical section

gravity or solid density is known. For instance, if cement filled into a cube foot container weighs 90 lb. and the specific gravity of the cement is 3·15, the voids in the 90 lb. of cement expressed as a percentage of the solid volume is given by:—

$$\frac{[(62.4 \times 3.15) - 90] \times 100}{62.4 \times 3.15} = \frac{106 \times 100}{196}$$

$$= 54\%$$

Repeating this calculation for a particular aggregate having a specific gravity of 2-6 and a bulk density of 90 lb./ cu. ft. as for the cement, the voids content as a percentage of the solid volume is 44-5 per cent. It is obvious that in spite of the aggregate being of lower specific gravity it packs more tightly and hence has a lower void content than the cement. The packing of particles in relatively large assemblies in the normal weight range is governed by the shape of the particles and their fineness. In the case of concrete aggregates the shape is predominant but in finely divided materials such as cement, the fineness of the particles is predominant.

The Road Research Laboratory in a series of tests on single sized aggregates was able to establish a relationship between per cent void content and the sphericalness of the aggregates tested. It was shown also that, provided an aggregate was well rounded although of lower specific gravity than another but angular material of similar grading, the density of packing of the rounded aggregate was the greater. The maximum density of packing obtainable with spheres of a uniform size is about 74 per cent i.e. 26 per cent voids and this is true irrespective of the diameter of the spheres.

Solution to Problem of Packing

The packing of spheres of uniform size lends itself to mathematical analysis but the introduction of two or more sizes makes calculations impossibly complex. The use of two sizes of spheres may well allow the density to be materially increased. Take the case of the rhombohedronal packing quoted above for single sized spheres. If as the system is built up a second sphere of dia. 0.414 D is added, where D is the diameter of the major sphere in the system, the density of the combined system will increase from 74 per cent to 87 per cent solids in the total volume. Alternatively, if all the major spheres are poured into the container first, instead of being introduced layer by layer as when a second size of sphere was used to reduce the voids, it will be found that the voids in between the spheres of diameter D can be reduced by the addition of spheres of diameter 0.155 D which are able to pass through all the void openings in the major sphere assembly and so once again increase the packing density, this time by infiltration.

If it is a question of making concrete of these "aggregates" it is obvious that the use of the "occupational" spheres of 0.414 D is likely to be laborious in the extreme whereas a mixture of spheres of D and 0.155 D in the correct proportion will give at least as good a final density with far less trouble. Another important feature of the second size range is that the distribution of the major and 0.155 D, "admittance," spheres among each other is likely to be much more uniform, and "arching," which can create appreciable voidage, is less likely to arise.

It can be seen that by using spheres which are too closely graded, i.e. D, 0.5 D, 0.25 D etc., the uniformity of particle size distribution in a mix will come out of control and result in grouped distributions within the body of the assembly, the number of groups increasing rapidly with the number of the various diameters. The random distribution and combination of sizes must result in quite large local variations in density, a matter of some importance in the formation of shields. The arguments set out above may be applied equally well to aggregates having naturally varying shapes and indeed this is the principle of packing upon which gap-graded concrete is based and which has proved very successful in many instances. In practice it is very difficult to produce a uniform size distribution of the aggregates in a traditionally continuously graded mix whereas with gapgrading it is almost impossible not to.

Density of Ingredients

In considering shielding concretes it is worthwhile investigating the densities of the ingredients and how these affect the overall density of the shield.

Take a nominal 1:2:4 concrete by volume using a w/c ratio of 0.5. On average this proportioning would give an a/c ratio by weight of 6.5. Analysing this mix into its various components we arrive at the figures in Table 3.

Table 3

Material Concrete Stone Sand	Vol. in cu. ft. 1 0·504 0·25 0-096	Sp. g. 2·413 2·6 2·6 3·15	Wt., lb. 150-7 81-5 40-5 18-8	Mortar	Vol. cu. ft. 0-497	Wt. Ib. 68-7	Density lb./cu.ft. 138-4
Cement				Mortar	0-497	08.1	130.4
Water	0.151	1.0	9.4				

It is evident from this table that about half the volume of the concrete is made up of mortar at a density of 138 lb./cu. ft. If, then, the volume of mortar in a shield can be reduced without sacrificing the workability of the concrete, it is possible to improve the effectiveness of the shield per unit thickness. Furthermore if the sand is reduced it is often an advantage to reduce the water content as well in order to prevent bleeding. This reduction of the lightest element in the concrete will increase the density of the concrete particularly as the volume of the water removed must be replaced by either aggregates or cement having at least 2.5 times the density of the replaced fluid.

SIB File No.	(94)	
UDC No.	725-56	

The Housing Needs of Old People

by Mary Empson

Bungalows for Bridgwater Borough Council, designed by J. D. Blacklock; the bungalows and (bottom) the meeting room and warden's house



"The housing needs of old people are different from those of families," said the Minister of Housing and Local Government. An examination of some houses and flats built for the old suggests that not everyone may be clear as to what the differences are. For those who have not yet studied the problems to which old age gives rise, this article describes how they affect the design and equipment of a house.



building illustrated



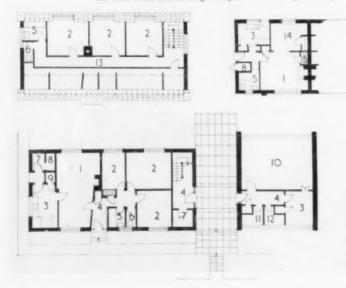
Block plan, Bridgwater [Scale: 48" = 1' 0"]

KEY

- bungalows
 flats
 warden's house
 meeting room
 tenants' gardens

First floor plan, warden's house, consisting of three guest bedrooms, below left.

Plan of typical bungalow, below right, and ground floor plan, warden's house and meeting room, bottom [Scale: 14" = 1' 0"]



Local authorities usually regard anyone of pensionable age (men over 65 and women over 60) as eligible for housing reserved for old people, and this connection with the age of retirement may account for the fact that the needs of the really old are so seldom reflected in houses built for them. Yet it is now the generally accepted social policy that people should live in their own homes into advanced old age, if possible to the end of their lives. (It is not always realised that only 1.3 per cent of people over 65 are being cared for in residential homes.) Special housing for the elderly should therefore be planned not for active sixty-year-olds, but for those who hope to lead an independent life throughout their eighties and even later.

Siting, planning and equipment of these houses must take account of physical changes associated with increasing age. Slowing down of actions and reactions, often accompanied by rheumatic or arthritic conditions affecting the joints, make bending, reaching and stretching difficult. Inability to grip makes it hard to turn door handles and taps. Failing sight, impaired balance and a tendency to giddiness are all possibilities calling for special precautions against risk of accidents. As people become less active they feel the cold more: a constant even warmth throughout the whole dwelling, becomes therefore of the first importance. Finally, many old people outlive relatives and friends, and find themselves alone at a time when loneliness may seem of all ills the hardest to bear. They must then depend on the interest and help of neighbours, and for this reason it is not advisable to group together too many of the special houses and flats.

The ideal is small groups of bungalows or flats interspersed among other types of housing and as near as possible to shops and other facilities. Small sites becoming available in town centres through slum clearance or redevelopment can also be used because there are always old people who prefer to live in the town rather than on an outlying housing estate. Unless the dwellings are close to shops old people will eventually be unable to do their own shopping and a major interest and activity will be denied them. If they are far from transport, social contacts will be made difficult and perhaps eventually impossible.

Finally, since the old will gradually spend more and more time indoors, the outlook should be lively and interesting, with a cheerful south or south-west aspect wherever possible.

Type of building

Most people regard a bungalow as the ideal accommodation for the old. However, surveys have shown that even among people of over 80 more than half can manage one flight of stairs. There is therefore no need to rule out flats, provided that there is a lift if the building consists of more than two storeys. Staircases are easier if they are designed with slightly wider treads and lower risers than normal and are fitted with a handrail on each side. Floor coverings to stairs and corridors should have a non-slip surface. Stairs to first-floor flats should be under cover because outside stairs can be dangerous in wet or frosty weather. If the design provides for an individual staircase to each first-floor flat, the front door is better placed at the top, so that the tenant need not go downstairs to answer the door.

KEY TO FLOOR PLANS

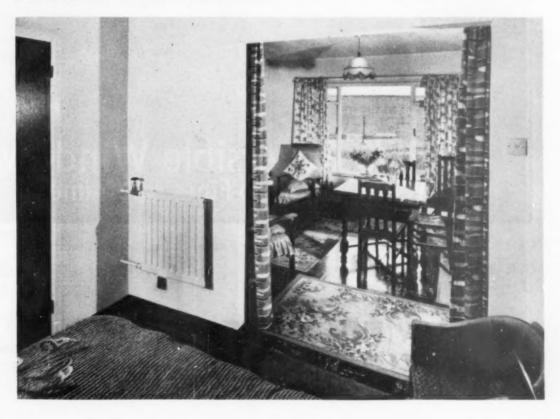
- living room bedroom kitchen hall bath

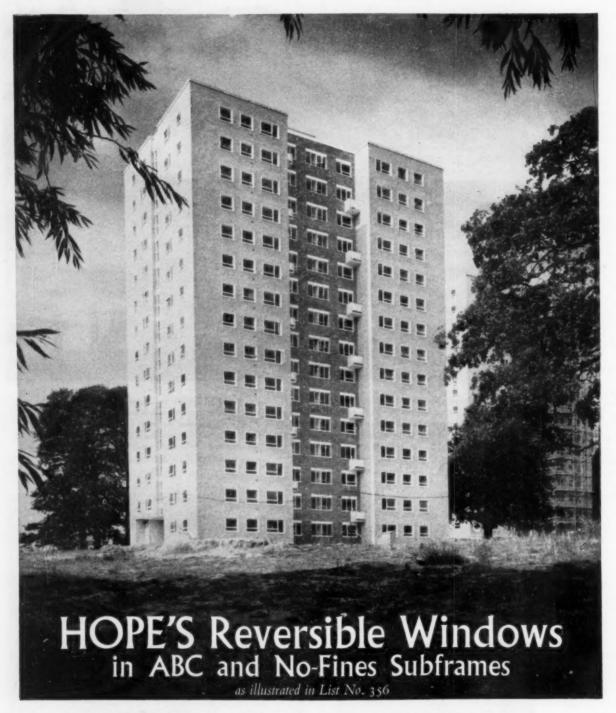
- 5. bath 6. w.c. 7. store 8. fuel 9. larder 10. meeting re 11. men 12. women 13. corridor 14. bed recess



For many retired people gardening is at first a major occupation. But stooping or kneeling becomes increasingly difficult and gradually the garden has to be given up. It is probably best, therefore, to provide little more than a small border at the front of the house, with some space at the back for cultivation by those who can manage it. Many occupants of flats, too, would value a little space for planting under the

The scheme at Bridgwater consists of twelve flats, above, and eight bungalows, with a common room and warden's house. There are three guest bedrooms with separate access on the first floor of the warden's house for use by relatives or friends of the tenants. Each living room fire provides hot water and heats a radiator in the bedroom or bed recess, below



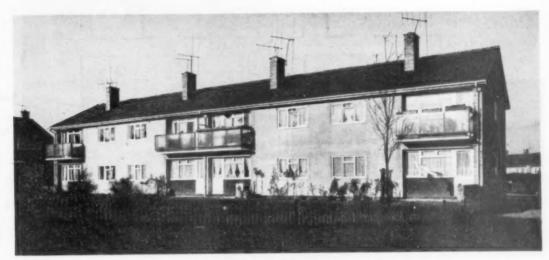


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C. H. A. Willett, F.R.I.B.A., Borough Architect George Wimpey & Co. Ltd., Contractors

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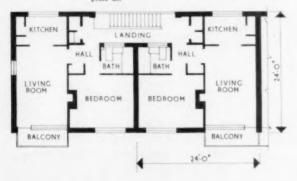


One-bedroom flats for old people at Spencer's Croft, Harlow, designed by Harlow Development Corporation (Executive Architect, Victor Hamnett) in association with the architects of MOHLG. An open fire in each living room heats a radiator in the bedroom and an airing cupboard in the hall. Above, the south side of the block, the living rooms on the first floor being provided with balconies. The first floor flats are reached by open staircases, left

window or by the front door, or in a window box on upper floors. A raised planting space in a wall or trough can offer the pleasures of gardening without stooping.

Flats can be more easily provided with central heating and other services than can bungalows. This is especially true of the flatlets recommended by the Ministry of Housing and Local Government.* These bed-sitting-room dwellings have been specially designed to reduce housework. For a woman the care of a house, including shopping and cooking, is both an occupation and an interest. The architect's purpose should be to enable her to enjoy the familiar household tasks without their becoming a burden. Fewer rooms to sweep and dust, no fires to light or fuel to carry, no high shelves to collect dust and lumber-all these things contribute to the labour-saving home.

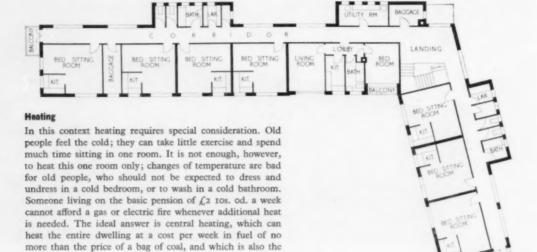
"Flatlets for Old People." Her Majesty's Stationery Office, 1958, price 2s, "More Flatlets for Old People." Her Majesty's Stationery Office, 1960, price 2s.



Part first floor plan, bottom left [Scale: + = 1 0] Block plan, below [Scale: 15," = 1' 0"]



building illustrated



to centrally heated accommodation. As well as flats, small groups of bungalows can be heated from a central boiler, and in bungalows which do not form part of an easily heated group it is possible to use hot water from the back boiler to heat at least a radiator in the bedroom and a towel-rail in the bathroom. If the hot water cylinder is placed in a cupboard in either the kitchen or the hall, background heat will be provided in most of the dwelling with little if any additional cost in fuel. In such cases the living-room grate needs to be chosen with care, for in many appliances the ashpan front is too heavy for old people to lift easily; both the draught control and the ashpan itself

safest form of heat, a matter of importance to old people living alone. The belief that elderly people would be unhappy without an open fire is not confirmed by those tenants who

have had experience of central heating in modern flats;

they have found that the advantages outweigh the dis-

advantages. Certainly, a striking improvement in the mobility

of arthritic old people has been observed after their removal

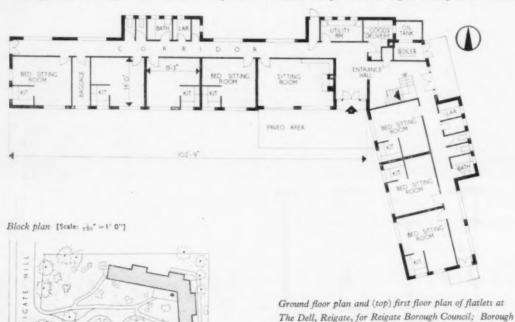
should be easy to manipulate, and the grate should have fittings to take a British Standard fireguard. It is better to provide an intermittent rather than an all-night burning appliance, because the fire is rarely kept in all night. In designing a fuel store the aim should be one under cover from which the fuel can be taken without stooping.

Fittings and Equipment

Recommended standards for room sizes are contained in Housing Manuals issued by the Ministry of Housing and Local Government. In the detailed design of such things as windows, cupboards and baths, or the position of light switches, power plugs and meters, it is essential that the architect should bring his imagination to bear on the physical effects of growing old. If window fasteners and cupboard handles are placed much higher than 5 ft. the tenant will

Engineer and Surveyor, G. C. Sanderson; Borough Architect,

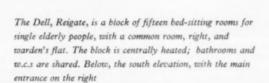
C. A. G. Wicks [Scale: 10" = 1' 0"]



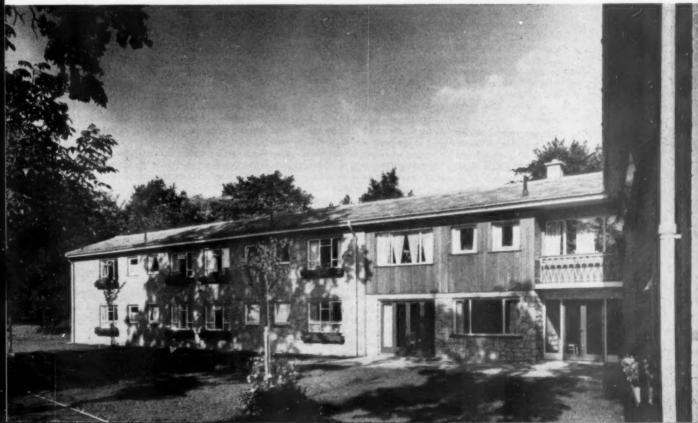


The Dell, Reigate; entrance hall, left, and the block as seen from the road, below









building illustrated

have to climb on a chair or steps to reach them. Eighty per cent of fatal home accidents to old people are falls, and a fall that is not fatal may leave someone seriously crippled; yet in countless flats and bungalows designed for the old there are shelves 6 ft. and more from the floor, and opening lights of windows (particularly those above the sink or bath) which are out of reach. In such dwellings a common sight is a little pair of steps. Less dangerous, but equally inconvenient to anyone who cannot bend or kneel with ease, are electric plugs at skirting level, or a slot meter on the floor at the back of an unlit cupboard.

Windows

These should not be too large. Apart from loss of heat and cost of curtaining, a large window may give a sense of exposure and insecurity, particularly in a ground-floor dwelling. A french window, whether to garden or balcony, is better liked if not glazed to the ground.

Old people have an extreme dislike of draughts and often object to feeling fresh air entering a room. Centre-hung pivot windows which cannot be opened without admitting air at the bottom tend to be unpopular. Sash windows, which provide admirably for ventilating at ceiling level, may be too heavy to manage. Casement windows are probably the most satisfactory, but they should be combined with an upper ventilating light, so that air can be admitted at a height where it is least felt. It must be possible to open such a light without reaching up: even if the window top is well below ceiling level, a piece of furniture or the kitchen sink in front of the window may put the fastener out of reach. A cord or pulley, or some similar device, will be needed on all such openings.

The living-room window-sill should be low enough to enable anyone sitting in an easy chair to watch in comfort what is going on outside. Casements opening about 10 in. above the window-sill are convenient from the point of view of placing things there, but make the cultivation of window-boxes below outer sill level virtually impossible. Perhaps the solution to this problem is to provide window-boxes only on balconies. A tiled sill inside is a good place for plant pots.

It is important to relate bedroom windows to the proposed position for the bed, because old people may have to spend some time in bed. A window opposite the foot of the bed is trying to the eyes, while one too near the head is likely to be regarded as draughty. The ideal position allows anyone lying in bed to see out without being too directly in the line of light or air.

Cupboards

The governing consideration for shelves and kitchen cupboards is that an object placed at the back of a shelf more than 5 ft. in height will be beyond the reach of many old people. The space between the cupboard top and the ceiling is better boarded in so that it cannot be used as storage space or require dusting. A built-in hanging cupboard in the bedroom is an advantage, as the tenant is then not obliged to introduce a wardrobe which may be bulky and oldfashioned. However small the dwelling, a broom-cupboard is essential, and it should be large enough to take a small vacuum sweeper.

Baths

Because of stiffened joints and lack of balance most old people have difficulty both in stepping into the bath and in getting up if they sit down in it. Some like a sitz-bath, but this must be either sunk into the floor or fitted with a step or platform to enable the user to get in. A shower fitted with a seat and hand-spray is another possibility. It is an advantage of the shared bathrooms provided in a flatlet block that alternatives of this kind can be offered.

In ordinary bungalows and flats it is probably best to supply a very-low-sided bath (there is one on the market which measures 15 in. from floor to rim) with a fitted seat. In any case, a hand-grip must be fitted to the wall beside the bath, and it is a help if an opening can be cut in the outer panel to allow the bath rim to be gripped (this is preferable to a hand-grip on the outer edge which is in the way of anyone getting in). A self-adjusting plug makes stooping over the bath unnecessary. Lever taps are preferable for bath, basin and sink.

A low w.c. pedestal should be avoided, and hand-grips on both sides may be needed.

Light Points and Switches

Dark corners and ill-lit stairs and lobbies are dangerous. It is particularly important to provide a light fitting or a point for a lamp near the intended position for the bedhead (it is astonishing how often this is omitted). Projecting switches are more easily found by feel than those flush with the wall.

Door Fittings

Lever handles are easier to use. A bolt on the front door should not be placed at the top or bottom, where it would be difficult to reach. A letter-box inside will ensure that letters do not have to be picked up from the floor. Steps up to the door, as well as any form of weather sill which might cause stumbling, should be avoided if possible.

Social Needs

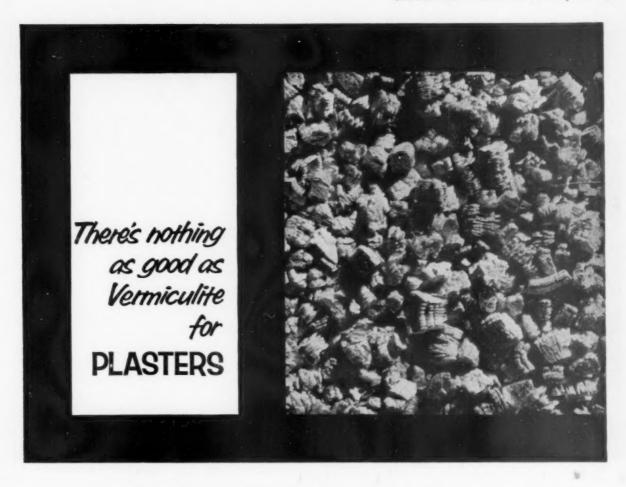
The problems of old age, whether physical or mental, press hardest on those living alone. To them old age may bring not only loneliness but insecurity, the fear of not being able to look after themselves, and the dread of losing their independence. Housing for old people should therefore be planned to lessen loneliness and give a sense of security. To some extent this can be done by integrating the dwellings with ordinary housing, but even the best of neighbours have family preoccupations and cannot always be at hand. For those who may come to need more help than a neighbour can undertake to give, the arrangement whereby a group of old people's bungalows or flats has the services of a warden living near-by provides an excellent solution. Individual dwellings should be connected with the warden's house by a bell: in practice these bells are seldom used, but there is no doubt that the knowledge that someone can be called in an emergency is very reassuring. The warden is there not to replace the home-help or district nurse, but to provide unobtrusive help of a personal kind, help which might range from drawing a pension or shopping, to hanging curtains or washing hair.

Loneliness can be further combated by the provision of a small common-room, perhaps with an attractive open fire, where people may meet for a game of cards, to watch television or join in a weekly "social."

Many old people find the mere proximity of neighbours in the same building reassuring, and this is an advantage in particular of flatlet blocks, where bed-sitting rooms open off a common corridor. It is possible to design this corridor with small seating spaces where a couple of comfortable chairs may encourage neighbourly conversation.

Conclusion

This list of points to watch when designing housing for the old contains much that may seem self-evident or trifling. Yet the convenience of daily life depends on many small matters as well as on such fundamentals as good heating. There is no doubt that attention to the kind of detail dealt with here does much to ensure the comfort and well-being of elderly tenants.



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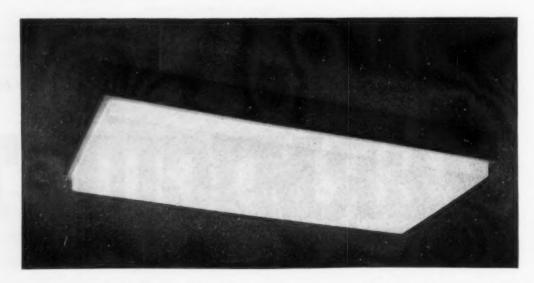


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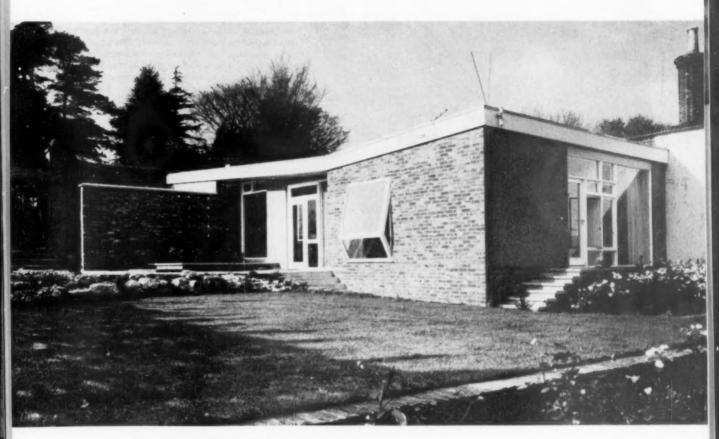
17 MONTPELIER STREET . KNIGHTSBRIDGE . LONDON . SW7 . TELEPHONE KNIGHTSBRIDGE 6897-8

SIB File No. (98)728 - 37 UDC No.

House

near Tunbridge Wells Kent

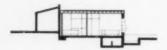
designed by Brian Peake



The house seen from the south-east corner of the garden

These days architects are often asked to design dwellings on small and improbable sites. Many such houses are being built in the grounds of old houses, which is, as the Minister of Housing recently pointed out, one way of overcoming the present land shortage. This single-storey house takes maximum advantage of its small plot, the former greenhouse and kitchen garden of an old country mansion.

building study 2nd series

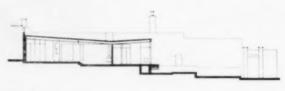


Section CC [Scale: h" - 1' 0"]



, Section BB

APPRAISAL: In recent years the growing scarcity of building land has prompted many owners of large houses set in comfortable grounds to carve up their gardens and outbuildings to provide plots for new dwellings. The resulting development is all too often squalid and depressing. Scale is destroyed, the new buildings appear vulgar or incongruous (or both), and the original setting and landscape are totally destroyed. Yet the principle of grafting new dwellings onto these old properties is by no means unsound, and given care and restraint in the design, the results can be most pleasing. In this example, the architect has most carefully preserved the essential scale of the setting. No red pantiled roof glowers over the garden wall in sultry defiance of the nearby older mansion. This new house is unobtrusive and quite appropriate in its peaceful, secluded garden. Occupying the site of a former greenhouse its long frontage faces due south and thus benefits from maximum sunlight. Existing changes in levels of the ground have been retained and skilfully incorporated into the design. With floor-panel heating and patent double-glazed units to the larger windows, it is a warm and cosy building ideally suited to the requirements of the middle-aged client. Although by no means a cheap building it is not extravagant. The detailing throughout has been most carefully considered and if some might consider the kitchen somewhat small, or the curious projecting bedroom window a trifle meretricious, these would be but minor criticisms of a building that generally seems to work efficiently and well.

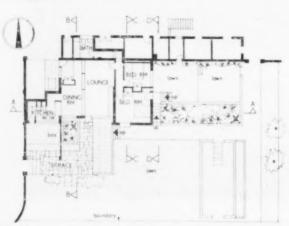


Section AA



Section DD

Ground floor plan



Site plan [Scale: 150" - 1 0"]



The living room showing the screen unit and steps up to the dining space, kitchen and entrance hall



CLIENT'S REQUIREMENTS

A single-storey dwelling with two bedrooms; living and dining areas to be treated as a single volume.

The house was to replace a big greenhouse in the grounds of a large house now subdivided into flats.

PLANNING AIMS

The brick wall, forming the north side of the greenhouse, and the west boundary wall of the site have been used as the structural external walls of the house. This has given a southerly aspect to the house, with the living room wall almost fully glazed and opening directly onto the terrace. The existing greenhouse was divided into a number of different levels and these have been generally retained for the new house, a new concrete slab being put down directly onto the existing tiled floors. A front entrance drive with a covered carport has been formed directly off the existing common garage yard to the north of the site, and a tradesmen's entrance to the back door is provided through the west boundary wall and a small service yard, which is screened from the rest of the site by a perforated brick screen.

The combined living-dining room has been broken down by using the existing changes of level. At the same time, in order to give the maximum feeling of space as a first impression on entering the house, the entrance hall is defined by free-standing fittings rather than by solid partitions.

SUMMARY

Floor area (excluding carport): 980 sq. ft. Type of contract: RIBA.

Tender date: February 1959. Work began: February 1959. Work finished: September 1959.

Tender price of foundations, superstructure, installation and finishes, including drainage to collecting manhole: £4,470.

Tender price of external works and ancillary buildings including drainage beyond collecting manhole: £209. Total: £4,679.

COST ANALYSIS

Based on tender (AJ revised elemental breakdown in use

rom November 10, 1960).		
	Gost 1	orr
	sq. f	1.
	8	d
reliminaries and insurances		11
· 12 per cent of remainder of contract.		
ontingencies	5	0
Vork below lowest floor finish	5	0
Normal concrete strip foundations.		

STRUCTURAL ELEMENTS

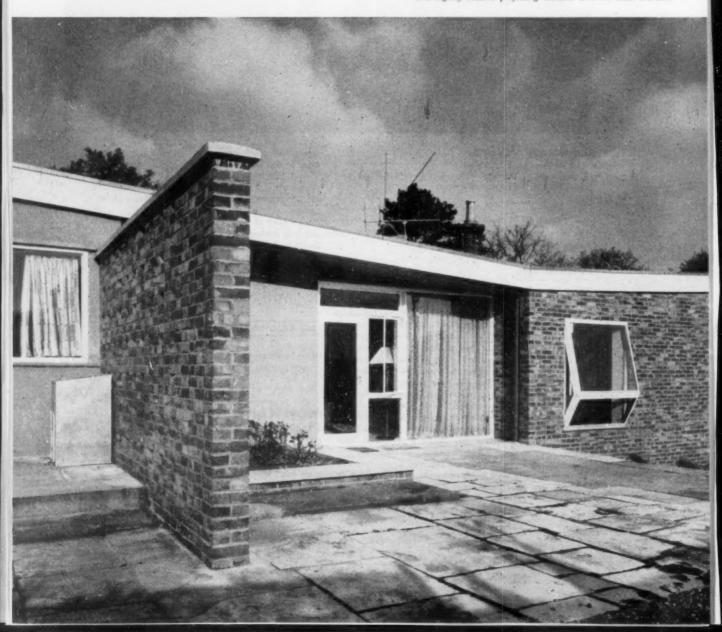
Novi	13 10
Timber joists carrying 2-in. compressed straw	
panels and three layer bituminous felt; cast iron	
rainwater goods: 136 sq. yds., 91s. 2d. per sq. yd.	

building study -2nd series



A front entrance that is delightfully unobtrusive. The low arch spans the porch and carport

The garden front. The wall screens a small kitchen yard (left). The slightly bizarre projecting window is to the main bedroom



Another view of the living room. The door in the corner leads to the bathroom and bedrooms



The main bedroom



building study 2nd series

	8	d			d
External walls	7	01	Waste, soil and overflow pipes	1	81
Outer leaf of 4½-in. multi red facings, 2-in. cavity,			Copper.		
and inner leaf of 4-in. lightweight concrete blocks:					0
104 sq. yds., 66s. 7d. per sq. yd.			Hot and cold water services	4	0
Windows	11	31	Multipoint gas water heater; copper piping.		
Timber frames with metal inserts for opening lights.					
Patent double glazing units for large panes:			Heating services	5	1
338 sq. ft., 32s. 8d. per sq. ft.			s d		
			Electric floor-panel heating 3 8		
External doors	2	0	Fireplace, including copper hood I 5?		
Hardwood glazed: 42 sq. ft., 46s. 9d. per sq. ft.					
			Ventilation services		2
Internal structural walls	3	9	Small extract fan in kitchen.		
9-in. brickwork: 125 sq. yds., 29s. 3d. per sq. yd.					
Partitions	1	0	Gas services		3
2-in. lightweight concrete blocks: 38 sq. yds.,			Supply to cooker, water heater and living room fire.		
25s. 3d. per sq. yd.			Electrical services	E	6
			Type of outlet No. of each type	9	
Internal doors	2	3	13-amp. ring main 12		
Flush: 90 sq. ft., 24s. 6d. per sq. ft.			Lighting 8		
12 single doors.			Floor heating 3		
5 pairs double doors.					
			Drainage	3	2
Ironmongery		6	4-in. stoneware.		
Lever handle door furniture. Satin chrome finish.					
Total of structural elements: 41s 71d			Total of services: 21s 1½d		
Total of stractural cicinents. 410 140			EXTERNAL WORKS		
FINISHES AND FITTINGS			Darks associate malls arrow dains arrive	-	-
Wall finishes	3	6	Paths, retaining walls, access drive, service connections.	4	3
Two-coat plasterwork: 180 sq. yds., 19s. 1d. per			connections.		
sq. yd.			Total cost per sq. ft. of floor area:		
Plans Suinhas	0	6 6			
Floor finishes	4	. 02	£4,470 (net cost excluding external works)		
Screed for carpeting: 90 sq. yds., 19s. 3d. per sq. yd.			980 sq. ft. (measured inside external walls)	91	2
Thermoplastic floor tiles and screed: 19 sq. yds.,			980 sq. it. (incasured inside external walls)		
40s. 3d. per sq. yd.			COCT COMMENTS		
Cost includes softwood skirtings.			COST COMMENTS		
Cailing finishes		2 0	At a cost of £4,470 for 980 sq. ft. (just over 90s. per	sq.	ft
Ceiling finishes Insulation board: 36 sq. yds., 17s. 9d. per sq. yd.			and this was 1959) this is not a cheap house, yet it is		
Skim-coated plasterboard: 73 sq. yds., 18s. 3d.			simple and straightforward construction without und		
per sq. yd.			extravagance in the materials and finishes used below ground floor level was relatively costly—but		
			be remembered that with changes in level in the		
Decorations		4 2	and site, conditions would have been tricky. The roof a		
Two coats emulsion paint on plaster.			about 14s. per sq. ft. seems expensive for what is o	only	CO
Three coats oil paint, gloss finish, on timber and			ventional construction. The high price of the wir		
metal.			just over IIs, per sq. ft. is due to the cost of th	e n	ater

Built-in units by general contractor: Kitchen fittings 2 10 Unit between dining and living rooms 2 3 Hall cupboard

Total of finishes and fittings: 18s 3d

SERVICES

	The second secon	-	-
Sanitary fittings		1	1
Type of fitting	No. of each type		
White glazed fireclay w.c.	I		
White glazed fireclay basin	I		
Vitagore anamallad cast igon bath			

st at just over 11s. per sq. ft. is due to the cost of the patent double glazing units for the larger panes. Most other elements appear to have cost what one would expect for an essentially good quality job. In the event, the money seems to have been very well spent.

CONTRACTORS

General contractor: A. E. Franks. Sub-contractors-Floor heating: Dulrae Ltd. Roofing: D. Anderson & Son Ltd. Electrical: Charles Mickleburgh Ltd. Metal windows: Crittal Manufacturing Co. Ltd. Sanitary fittings: John Bolding & Sons Ltd. Acoustic ceiling: Thermal & Acoustic Installations Ltd. Rendering: Glamorock Textured Finish Ltd. Plastic floor tiles: Accotiles laid by Neuchatel Asphalte Insulite Co. Double glazing: Pilkington Bros. Ltd. Door furniture: H. & C. Davis & Co. Ltd.



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Marlith is light in weight yet has great structural strength. It is a splendid insulator against sound and heat, ideal for roofs, floors, walls and ceilings, reducing fuel consumption and costs.

Marlith can be used in pertect safety in conjunction with any other building material. It is also available with pressed metal

technical facts:

Standard sheet size: 6'x 2'-other sizes available-in 2" and 3" thicknesses: British Standard 1105: 1951

- * Thermal Conductivity (K) 0.58 (N.P.L. Test)
- * Thermal Resistivity (1 k) 1.72
- * Weight Average 25 to 30 lb. per cu. ft. all thicknesses.
- * Sound absorption of 60% over the middle cycles (N.P.L. Test)

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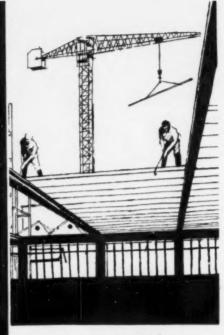
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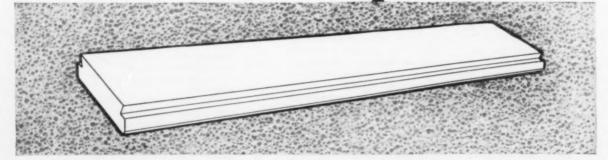
AGE

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- ★ Siporex is only a quarter the weight of an equivalent volume of concrete, reducing the cost of structural framework and foundations.
- ★ Siporex compares favourably in price with other building materials.



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While dealing with Public Service Authority enquiries, other services requirements for the building which may need to be investigated are:heating ventilation plumbing mechanical services electrical installation specialist equipment This should be done in analysing the drawings by calculating:air change requirements heat losses and thermal insulation airborne and structure-borne sound transmission, insulation and acoustics daylight levels and penetration artificial light levels.

The various solutions must then be considered and alternatives measured practically, financially, and visually against the requirements emerging from each calculation. It must be remembered throughout these investigations that one service often reacts against another and a superficially economical installation on one service may mean disproportionately high maintenance or running costs on another, or even considerably more builder's work which is not immediately evident from the calculation and solution alone.

Decisions can only be taken after alternatives have been considered individually and collectively in terms of:—

a. installation versus running or main-

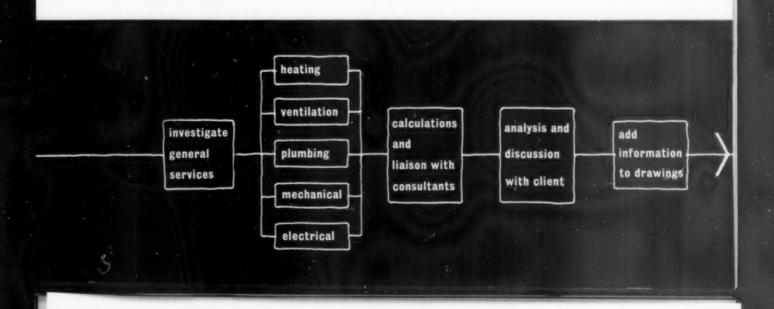
tenance costs

b, builder's work and or attendance

c. planning requirements, plant space, trunking, ducts, access, etc.

d. byelaw compliance, fire precautions, security and insurance.

A consultant will probably be employed for a complex installation, but it is still essential that your own analysis is made beforehand to ensure that your discussions with the consultant are based upon a set of requirements which are known to you and that the results will be correctly related to those on which specialist services are not required and for which you will be responsible.



Running concurrently with the design considerations in respect of general planning should be an exhaustive investigation of alternative materials, and methods of construction suited to the type of building. Careful analysis of all data, including obtaining and checking samples, should be made with special reference to:—

- 1. Building regulations or byelaws.
- 2. British Standards and Codes of Practice.
- 3. The information available from official research organisations, such as the Building Research Station, and from trade development associations.
- 4. The behaviour of materials on previous jobs. Don't hesitate to contact other offices whose experience may be wider than yours. The local authority building inspector will often be in the

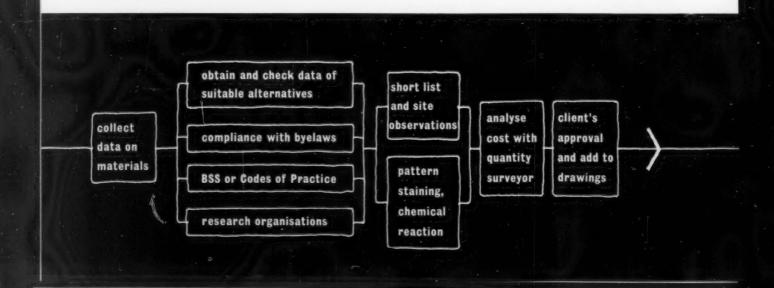
position to advise you on the performance of specific materials and construction under local conditions. It is more important to note the points of failure in the material or construction than the merits.

The importance of up-to-date reference information in the office cannot be overstated. This can take the form of either your own office library, one of the trade information services or A.J. Information Sheets.

Structural and subsidiary materials should all be checked for weathering and exposure on the particular site. Short lists of alternatives should be prepared and accurate observations made and noted on the behaviour of these materials where used on existing buildings in the locality of the site. Examples should be examined for weak-

ness taking into account orientation of the material on the building, the degree of exposure and any other influence (whether under trees, etc.). A check against adverse chemical reaction should also be made of materials which may be used together, and internally as well as externally consideration should be given to pattern staining or other defects which may arise.

The final assessment must be made only after you with your quantity surveyor have prepared an equally accurate analysis of initial costs against maintenance costs, etc., in order that recommendations to clients will give fully substantiated and unbiased information and allow them the opportunity to select or approve a material knowing the full facts behind its choice.



Contract administration

schedules

Recurring contract items should be Those items which are best scheduled to prevent confusion on either key or Key systems and possibly locks acceptdetail drawings include:-

Doors \ incorporating lintels and Windows glazing

Ironmongery

Sanitary fittings

Joinery and fittings

Electrical fittings

Finishes and decorations

Furnishings

The schedules should be prepared use of particular areas concurrently with the construction drawings and, while in the preliminary

stages, should be discussed fully with set out in schedule form with each the client. It is important that schedules item described and cross-referenced are read with their appropriate key on the appropriate drawing to the drawings, as it is at this stage that the position it is to take in the building. client's decisions must be given on such things as:-

able to their insurance company

Types of glass, considering sound and thermal insulation

Cleaners' sinks, drinking water points,

Types of timber, locks on cupboards, adjustable shelving, etc.

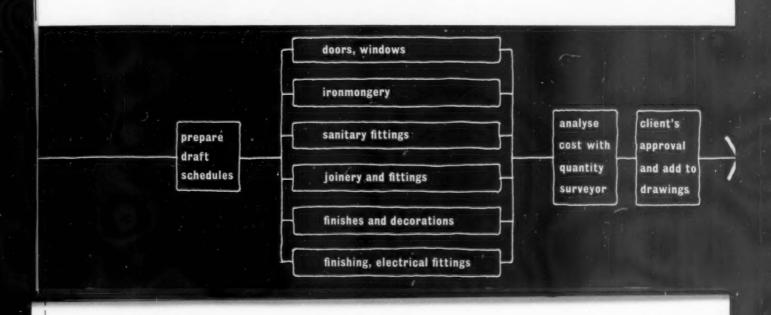
Switching systems and metering

Types of surface finishes related to the

Accommodation of existing and the extent of new furnishing

Curtain track systems.

The schedules include items in daily use and will in many cases be the things on which your client has positive views. Samples and illustrations with alternatives and with an analysis prepared in conjunction with the quantity surveyor of initial versus maintenance costs should all be available for discussion and be set in accurately comparative form. Everything needing your client's approval must be anticipated and decided upon now as many of the construction details being prepared in conjunction with these items are dependent upon these being agreed at this stage.



Contract administration

UDC No. 651:69

technical representatives

Although you may have discussed pro- g. access to the site (off-loading arrangeducts with sales representatives earlier, technical representatives of suitable firms should be called in to discuss materials or products as early as possible during the preparation of the key drawings. The proposals should be discussed in respect of:-

- a. suitability of materials
- b. availability and delivery (how protected in transit)
- c. terms of contract
- d. time required for the preparation of the quotation
- e. acceptance of their materials by local authorities, conformity with British Standards Specifications, etc.
- f. previous contracts carried out and whether these are available for inspection

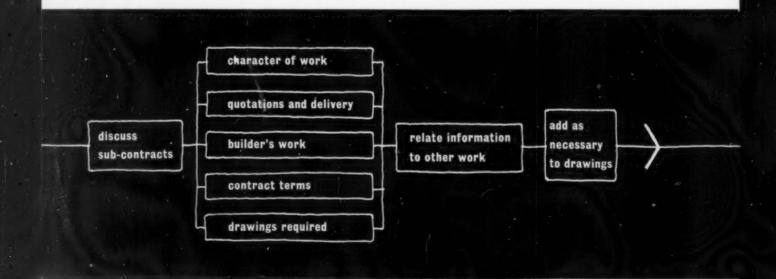
- ments)
- h. builder's work or attendance
- i. tolerance to which they work.

It is important that any questions outstanding are answered at these meetings so that the drawings can be developed, taking into account anything which is affected by the information either in respect of the item itself or other works related to it. No drawings should be released at this stage. Formal invitation to tender for works should not be issued at this stage but be held until drawings are complete. It is inadvisable to release "provisional" drawings as subsequent enquiries and developments may necessitate modification of them and it can lead to the wrong drawing reaching the

site or workshop if that firm is eventually chosen to carry out the work.

It is at this point that the design is often compromised and the basic conception lost in adjusting details to overcome technical problems. Before accepting modification you must be very sure, therefore, that a technical "impossibility" is not merely "more difficult." If a technical difficulty is a real one and likely to affect the general character of things, the design should be reconsidered to bring it into conformity with the basic principles.

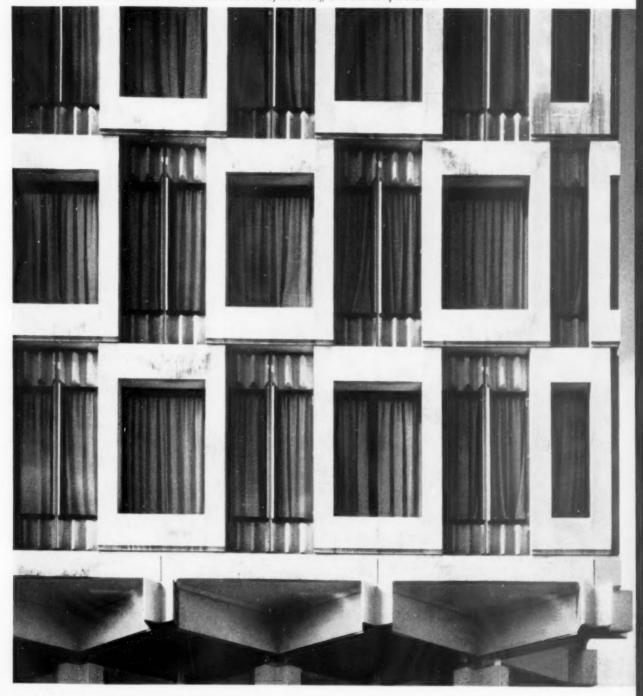
Refer back to the design report from time to time to remind yourself of the principles outlined to the client. These are easily forgotten in overcoming problems.



working detail

GLAZED WALL: OFFICE BUILDING IN LONDON, W.1

Eero Saarinen and Associates in association with Yorke, Rosenberg and Mardall, architects

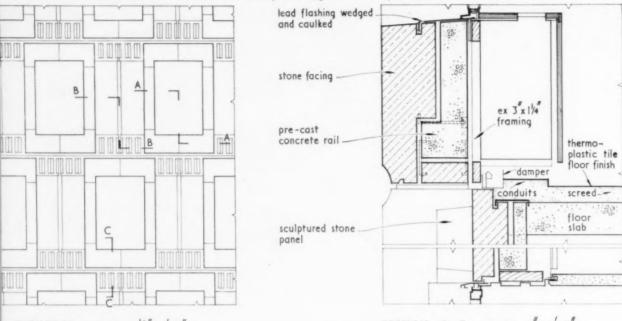


The main interest of this facade is aesthetic in that, though faced in stone, it expresses the concrete supporting structure. Immediately behind each external frame is a concrete "O" frame and each of these is connected directly to the four "O" frames immediately above and below and, by means of recessed beams, to the next "O" frames along.

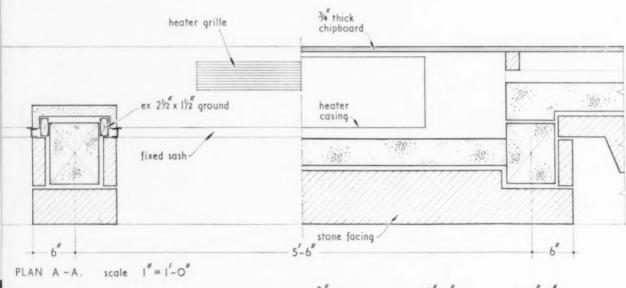
working detail

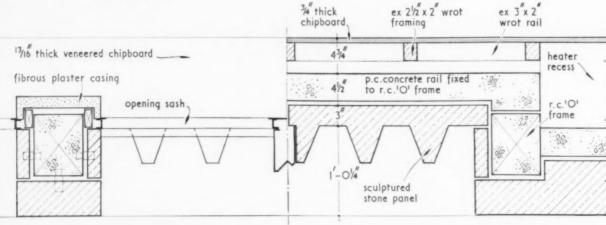
GLAZED WALL: OFFICE BUILDING IN LONDON, W.1

Eero Saarinen and Associates in association with Yorke, Rosenberg and Mardall, architects



ELEVATION. scale $\frac{1}{6} = \frac{1}{0}$ SECTION C-C. scale $\frac{1}{6} = \frac{1}{0}$





working detail

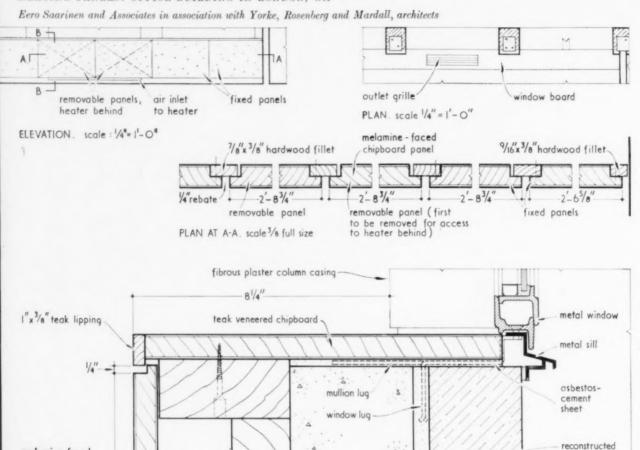
HEATING PANELS: OFFICE BUILDING IN LONDON, W.1

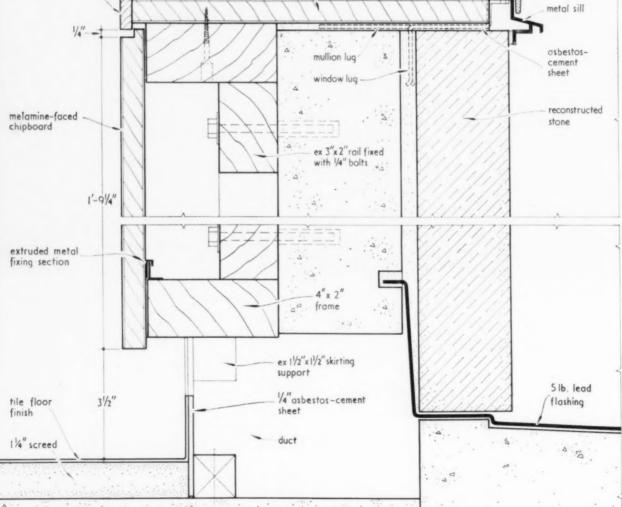
Eero Saarinen and Associates in association with Yorke, Rosenberg and Mardall, architects



This detail shows a neat method of securing panels beneath an internal sill to conceal heating units, one of which is placed in every second bay with a removable panel in front. Outlet grilles are in the sill.

HEATING PANELS: OFFICE BUILDING IN LONDON, W.1







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LINOLEUM belongs to Modern Living



With acknowledgements to Yorke, Rosenberg & Mardall, Archts, FF/FRIBA Architects to the SW Metropolitan Regional Hospital Board

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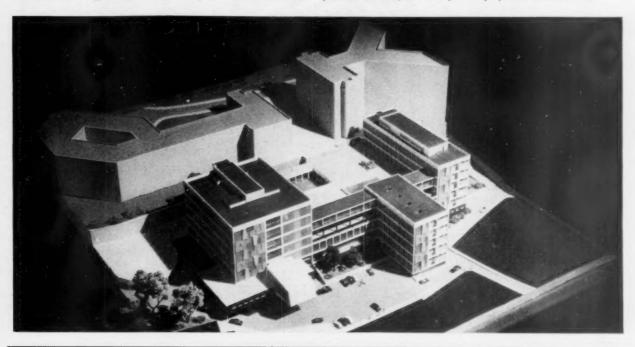
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WHOLEBALE SOCIETY LTD., FAIKland, Fife * JAS. WILLIAMSOF & SON LTD., Lancaster.



School of Chemistry, Bristol

Work has recently started on this extension to the University of Bristol on a steeply sloping site just south of the existing schools of medicine and engineering. Designed by Courtaulds Technical

Services Ltd., the buildings are planned not to disrupt the existing skyline as seen from many parts of the city, whilst making full use of the magnificent views available from the site. With this in mind, the central court, on top of the lecture theatres and library, forms a concourse partly open to the south. The project is expected to be completed in 1963 at a cost of about one and three-quarter million pounds. The chief architect for the project is W. F. Johnson.



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New City Office Block

This million pound office block, designed by Bernard Gold & Partners, is now under construction in the City of London on a site in London Wall. It will rise to a total height of just over 220 ft., and is expected to be completed in July next year. The block shape of this project is an immense improvement on most of the buildings completed in the City since the war. You cannot help wondering, however, whether the scale created by the pattern of the external curtain walling is really the right answer for a building of this size. There are a great many buildings clad in this way going up at the moment in London and elsewhere, of course, but there would seem to be a case for attempting a much more monumental scale of fenestration when this order of height is reached, plus, perhaps, some experiments in modelling in depth. In this case, the attempt, not altogether successful, has been made to provide some relief at low level.



The AVERY VENETIAN BLIND is the most robust and superbly made on the market, and can be supplied in a very large range of colours with matching or contrasting tapes and slats. Every kind of taste in interior decoration and every size of window can be met by the Avery Venetian Blind. Tapes are available in Carr's Super Terylene as well as French's woven Fleur-de-Lis or washable plastic.

The Avery Venetian Blind



The Accommodator

The DG VENETIAN BLIND is specially designed for DOUBLE-GLAZED windows and is the most advanced Venetian Blind there is. No loose cords are visible to spoil the appearance of the window when the blind is down. Just a turn of the knob and the slats can be completely opened or shut. The Blinds are fitted with "Invisible" Ladder-web and Terylene cords with a head rail is steel finished in stove enamel to give a very pleasing appearance.

The ACCOMMODATOR outside sunblind is made from specially impregnated cotton duck, yarn dyed tick or the new Tygan themoplastic material and is available in a wonderful choice of colours. The blinds are simply raised or lowered by a single cord and can be left at any angle. Fully descriptive leaflets on all the above are available on request.





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New City Office Block

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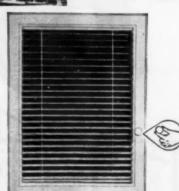


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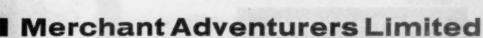


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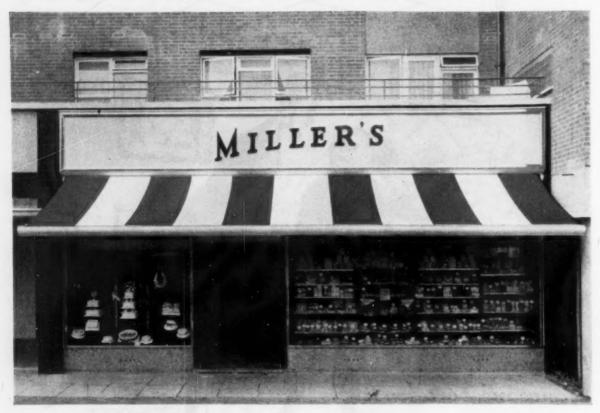
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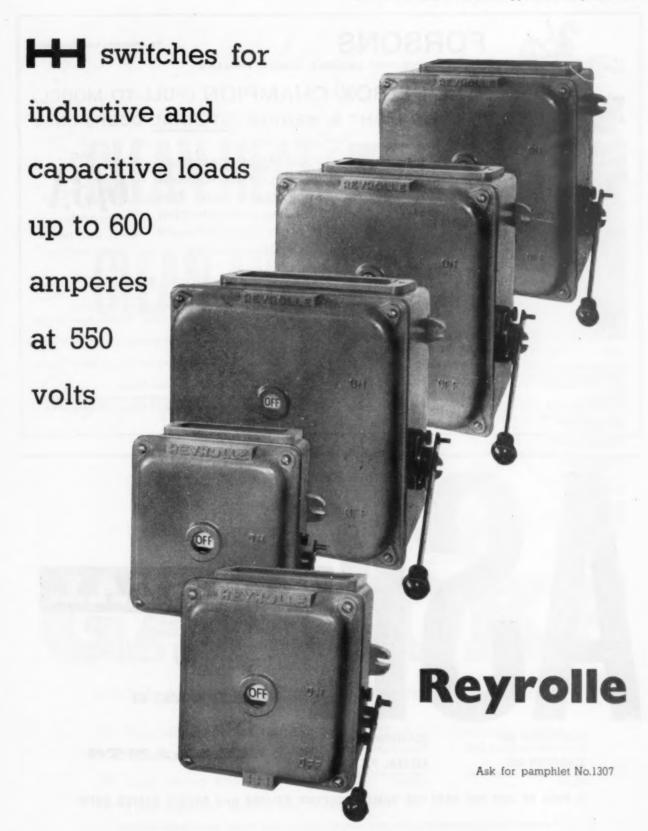
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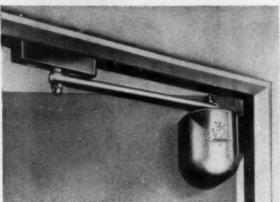


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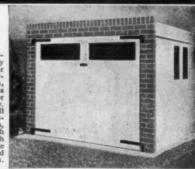
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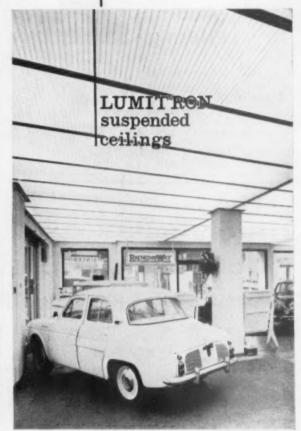
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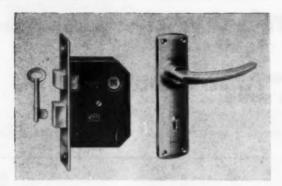
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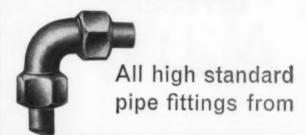
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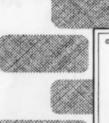
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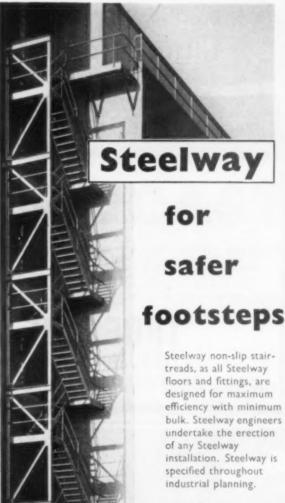
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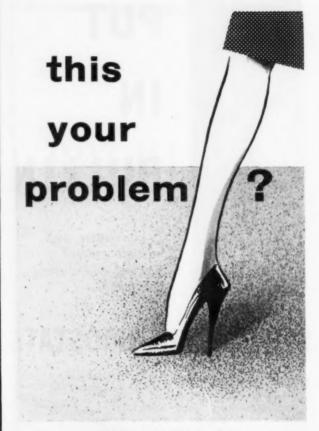
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Triple units with Back Attachments where required, are suitable for all open fire appliances with or without back boilers, and for free-standing stoves.

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A Consulting and Research Service on Acoustical Problems in Building

AIRO is an independent consulting organisation which provides facilities for Architects, Local Authorities, Government Departments and Industrialists in various fields of Acoustics.

These include building acoustics, noise control, acoustical measurements, calibration and research and development projects. AIRO operates a consultative and Field Service and an Acoustics Laboratory where standard electro-acoustic measurements are carried out

Experience has proved that co-operation with Architects at planning stage is of great benefit in reducing subsequent costs and revisions.

Architects are therefore invited to request early collaboration on acoustical design and noise reduction and matters in connection with Auditoria, Theatres, Studios, Cinemas, Schools, Hotels, Offices, Buildings, Flats, etc.

You are requested to contact:

ACOUSTICAL INVESTIGATION & RESEARCH ORGANISATION LTD. 118 Cromwell Road, London, S.W.7. Tel.: FREmantle 5101.



LONDON MIDLAND REGION EUSTON

REQUIRE

ASSISTANT ARCHITECTS

Architects are required for work on the redevelopment of major stations and for general work in connection with the London Midland Main Line Electrification Scheme and Modernisation Plan. Vacancies exist in the following grades:-

SENIOR ASSISTANT ARCHITECTS £1,350/£1,560

LEADING ASSISTANT ARCHITECTS £1,230/£1,350

ASSISTANT ARCHITECTS £1,070/£1,145

ASSISTANT ARCHITECTS £945/£1,020

All applicants should be qualified members of the R.I.B.A. and should preferably hold the diploma of a recognised School of Architecture. For senior positions it is essential that applicants have had experience of the control and direction of staff.

pplicants will be considered from newly qualified members of the R.I.B.A., unqualified assistants with experience and juniors wishing to enter the profession who have the necessary academic qualifications.

Superannuation Fund. Five-day week and concessionary rail travel.

When applying, quote reference No. 118 (AJ) giving qualifications, age, experience and salary required to:—

W. R. Headley, A.R.I.B.A., A.A. Dipl., Regional Architect,
Chief Civil Engineer's Office,
British Railways, London Midland Region,
Stephenson House, 67/87 Hampstead Road,
London, N.W.1.



... AND it resists penetration of fire for more than an hour *

Contirol has many attractive features - apart from the natural grade which diffuses 85% daylight — it is available in many pleasing, light-fast colours, translucent or opaque . . . is simple to instal in continuous horizontal lengths . . . is economical in use and saves continuous horizontal lengths . . . is economical in use and saves cost of artificial lighting. But — highly important and reassuring — it has been officially tested and has a fire rating of EXT. S. AC. As a result, the London County Council are prepared to consider applications for a modification of the existing bye-laws to permit the use of Contirol for industrial roof-lighting in continuous lengths. This means, in effect, that similar action will be taken by authorities over a much wider area.

> * At the Fire Research Station, Boreham Wood, Contirol was subjected to the External Fire Exposure Roof Test, in accordance with B.S. 476: Part 3: 1958. It resisted penetration of fire throughout the duration of the test of one hour. The results are given in a Report ref. F.R.O.S.I. No. 1990.



Contirol is polyester resin-glass fibre in corrugated or flat sheet and will be available in a wide variety of roofing profiles. It is expressly produced for daylight roof-lighting, north lights, verandahs, covered corridors, canopies and loading bays.

For all particulars, samples, descriptive literature and name of nearest main distributor stockist, write to:

JOSEPH WEIL & SON LTD.

Friars House, 39-41 New Broad Street, London, E.C.2. Telephone: LONdon Wall 5052. Telex: 22514.

ARCHITECTURAL STAFF

SENIOR AND INTERMEDIATE ASSISTANTS AND DRAUGHTSMEN

required by

F. W. WOOLWORTH & CO. LTD.

Five day week. Pension scheme. Dining facilities.

Modern office building. Good salaries according to experience and qualifications. Apply giving details of salary required, age and experience to:—

District Architect.

F. W. Woolworth & Co. Ltd.

1264 London Road, Norbury, S.W.16



TAYLOR WOODROW HOMES LTD.

require an

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up to Intermediate standard, capable of handling contracts from start to completion in a department working on varied housing development, including large estates, town development and private houses.

This post offers opportunity for appreciable individual responsibility and experience in one or more of the above would be an advantage.

Interviews can be arranged at any time including Saturday mornings with travelling expenses paid.

Write in first instance to:-

Chief Architect, Taylor Woodrow Homes Ltd., Western House, Western Avenue, Ealing, W.5.

BOROUGH OF AYLESBURY

ARCHITECT'S DEPARTMENT

Applications are invited from suitably qualified persons for the following permanent posts:—

(a) ASSISTANT ARCHITECT

(APT.V £1310 - 1480)

(b) ARCHITECTURAL ASSISTANT

(APT.II £815 - 960)

The Council has embarked on a scheme of town expansion under the Town Development Act 1952 for the acceptance of industry and population from the greater London area entailing a considerable architectural programme including the provision of new Civic buildings, town centre shopping facilities, industrial and housing development.

The appointments will be subject to the Local Government Superannuation Acts and to the National Scheme of Conditions of Service and will be terminable by one month's notice on either side. The successful candidates will be required to pass a medical exmination.

Applications stating age, qualifications, present and past appointments and details of experience together with the names of two referees, should be sent to C.M. Harding, A.R.I.B.A., Resident Architect to the Borough Council, 16 Walton Street, Aylesbury, Buckinghamshire, by not later than Monday, 15th May, 1961.

ARCHITECTS

Senior Architects
Assistant Architects
Architectural Draughtsmen

CRUDENS Architects' Department has vacancies for assistants with ability, initiative and a progressive outlook for interesting and varied work on multistorey housing, low level housing, school and factory projects.

Salaries will be commensurate with qualifications, experience and ability. Staff Pension Fund.

Applications which will be treated in strictest confidence should be made to:

G. Bowie, D.A. (Edin.) A.R.I.B.A., A.R.I.A.S., Chief Architect, Crudens Limited, Musselburgh, Midlothian, Scotland. Tel: MUS. 2244

ARCHITECTURAL ASSISTANTS

of all grades are required in the **DEVELOPMENT SECTION** of a firm of Building and Civil Engineering Contractors in the West End of London. The successful applicants will be required to assist in the Architectural Department engaged upon the preparation of designs and working drawings for housing and flat projects.

Applicants must be neat draughtsmen and have a basic knowledge of Building Construction and Architecture.

Commencing salary from £750 p.a. according to ability and experience plus half-yearly bonus. The positions offered are progressive and offer many opportunities of advancement to anyone who shows ability and initiative.

Apply in writing to:-

JAMES MILLER & PARTNERS LTD.,

7 Suffolk Street, Pall Mall, London, S.W.1

WIMPEY

ARCHITECTS and ASSISTANTS

who appreciate the contribution good design can make towards efficient construction, and who are interested in applying cost knowledge to detailing, are required in the Architects' Department whose current programme covers all types of commercial, industrial and domestic building projects. These are permanent appointments based at Head Office. Good progressive salaries; five-day week; three weeks' holiday; pension fund.

SIMILAR APPOINTMENTS to our REGIONAL OFFICES

will be made from applicants preferring to work in the Midlands and the North of England.

Write in confidence to:

E. V. Collins, A.R.I.B.A., Chief Architect GEORGE WIMPEY & COMPANY LIMITED Hammersmith Grove, London, W.6.

£960 to £1,140



ADMINISTRATION OF THE COUNTY OF KENT

COUNTY ARCHITECT'S DEPARTMENT

Re-organisation of technical groups in this office affords opportunities for the following:—

	Architects	
Group Working		£1,310 to £1,480
	Engineers (Electrical)	£1,140 to £1,310
Modern Offices		£1,310 to £1,480
Large and Varied	Quantity Surveyors	£1,140 to £1,310
	, ,	£1,310 to £1,480
Programmes	Land Surveyors	£960 to £1,140
		£1,140 to £1,310
	Fittings and Furnishings Designer	£1.140 to £1.310
	Fittings and Furnishings Designer	£1,140 to £1,310

All applications to be sent, together with particulars of qualifications, experience and salary expected to:

E. T. Ashley Smith, F.R.I.B.A., County Architect, Springfield, Maidstone, Kent.

CLASSIFIED ADVERTISEMENTS

Owing to the Whitsun holiday the issue of May 25th will go to press one day earlier than usual. All advertisements for this issue must reach the publishers not later than first post Thursday, May 18th.

Advertisements should be addressed to the Advertisement Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post Friday morning for inclusion in the Jollowing Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

given above.

AIR-MAIL SERVICE available on request. In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the AJ, shall be despatched by air-mail on Wednesday of each week (one day prior to AJ, publication date). The cost of this special service to Overseas subscribers will be 5s. for four weeks (1s. 3d, for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

Public and Official Appointments

Public and Official Appointments

36s. per inch: each additional line 3s.

AYCLIFFE DEVELOPMENT CORPORATION
(New Town or Newton Arclife)

AND
ARCHITECTURAL ASSISTANTS

Applications are invited for the above appointments at salaries within the range of Grades
A.P.T. IV and VI of the Whitley Council for New Towns Staff salary scales, i.e. £1,140-£1,565
p.a. The commencing salary and grade will be fixed according to the qualifications and experience of the successful applicant.

The principal work for the successful applicants will be in connection with the development of the Town Centre of the new town.

Appointments subject to N.J.C. Conditions, superannuation, medical examination and to one month's notice, in writing, on either side.

Housing accommodation available, if required.
Applications, stating age, qualifications and experience, together with the names of two referees, to be sent to the undersigned.

A. V. WILLIAMS,
General Manager.
Newton Aycliffe.

Churchill House, Newton Aycliffe Nr. Darlingto

Churchill House,
Newton Aycliffe,
Nr. Darlington.

CITY AND COUNTY OF NEWCASTLE UPON
TYNE
CITY ARCHITECT'S DEPARTMENT
A unique opportunity exists in this office for
competent Architects to take part in one of the
most ambitious programmes of varied building
works in the country, and vacancies in the
establishment occur for ARCHITECTS who will
be considered on their ability in design, experience, and architectural outlook, in the following
grades:

J.N.C. "B". £1,40-£1,570 per annum.
A.P.T. V. £1,30-£1,480 per annum.
A.P.T. IV. £1,30-£1,480 per annum.
A.P.T. IV. £1,560-£1,10 per annum.
A.P.T. IV. £1,560-£1,10 per annum.
A.P.T. IV. £1,560-£1,50 per annum.
A.P.T. IV. £1,50-£1,50 per annum.
A.P.T. IV. £1,50-£

hormal nousing development of a simulational character.

The department is also engaged on the New Town Hall, where an exceptional opportunity is presented for working on a building of some 44 million in value, and being executed in materials of the highest quality.

Architects wishing to take part in one of Britain's most stimulating programmes should apply immediately for further deals and forms of application to George Kenyon. A.E.I.B.A., A.M.T.P.I... City Architect. 18, Cloth Market. Newcastle upon Tvue, 1, indicating the grade for which they wish to apply.

JOHN ATKINSON.

Town Hall.

Town Hall. Newcastle upon Trne. 1 20th February, 1961.

TC6084

BOROUGH OF ENFIELD
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT
Applications are invited for the following permanent appointments (five-day week):—
ENGINEERING ASSISTANT—A.P.T. II.
ENGINEERING ASSISTANT—A.P.T. III.
ARCHTECTURAL ASSISTANT—A.P.T. III.
ARCHTECTURAL ASSISTANT—A.P.T. III.
Details of appointments and application forms obtainable from the Borough Engineer & Surveyor, 7, Little Park Gardens, Enfield.

CYRIL E. C. R. PLATTEN.

Civic Centre,

HORSHAM URBAN DISTRICT COUNCIL Applications are invited for the permanent appointment of CHLEF ARCHITECTURAL ASSISTANT in the Engineer and Surveyor's Department at a salary within Grade A.P.T. III/IV (4590-41.319).

partment at a salary within Grade A.P.T. III/IV (£960—£1,319).

Applicants should hold a final professional qualification and have good general experience, the qualifications and experience of the successful candidate determining the point of entry in the salary scale.

The appointment offers experience in a rapidly developing Urban District with an extensive and varied building programme involving individual treatment for each site and including flats, aged persons accommodation and houses for sale and letting.

The provision of housing accommodation for married applicants will be considered if required.

Fully detailed applications giving the names and addresses of two referees must be received by the undersigned not later than 15th May, 1961.

S. ASHTON STRAY.

Clerk of the Council.

NEWCASTLE REGIONAL HOSPITAL ROARD

NEWCASTLE REGIONAL HOSPITAL BOARD EXPANSION OF ARCHITECTURAL DEPARTMENT
P. H. KNIGHTON, M. B.E. A. R. I. B. A. REGIONAL ARCHITECT
The Board is at present proparing a 10-years programme containing a large number and variety of major hospital projects. Planning and building is already current on schemes costing about £15.000,000. As the programme includes also a wide range of buildings which are not peculiar to hospitals, good general experience as well as specialist experience may be gained. Applications are invited for the following (superannuable) posts:—
1. SENIOR ASSISTANT ARCHITECT (£1,300 × £60 (5)—£1,600).

£60 (5)—£1,600.

Open to registered architects with experience in the design and construction of major public buildings. Experience of hospital work desirable but not essential. Assistance with removal expenses if appointee at present in a lower-graded

expenses if appointee at present in a lower-graded Health Service post.

2. ASSISTANT ARCHITECT (£905 × £35 (1) × £45 (6) × £50 (2) -£1,310).

Applicants must have passed the R.I.B.A. Final Examination. For registered architects increments can be given above the bottom of the grade in accordance with relevant practical experience.

increments can be given above the control of the co

COUNTY BOROUGH OF DEWSBURY

BOROUGH ARCHITECT AND

BUILDINGS SURVEYOR'S DEPARTMENT
Applications are invited for the following
appointments within the scope of the grades
stated:—

(a) ARCHITECTURAL ASSISTANT (Housing
and General Section)—A.P.T. Grade III (£966—£1 140 p.a.).

(b) ARCHITECTURAL ASSISTANT (Education
Section)—A.P.T. Grade I (£646—£815 p.a.).
The provision of housing accommodation will
be considered if required.
The appointments will be subject to one month's
notice on either side and to the provisions of
the Local Government Superannuation Acts.
Applications stating age, education, qualifications, full particulars of training and experience,
together with copies of two recent testimonials,
should be sent to the undersigned not later than
Wednesday, 31st May, 1961, in envelopes endorsed
"Appointment of"

Town Clerk.

A. NORMAN JAMES. Town Clerk.

Town Hall, Dewshurv. 4th May, 1961.

BOROUGH OF HARROW Applications are invited for the following pointments in the Borough Engineer's Depart-

appointments in the Britanian appointment:—
PLANNING ASSISTANTS, A.P.T. Grade II (2815 to £960 p.a. plus London weighting). The commencing salary will be in accordance with qualifications and experience.
A contribution towards removal expenses will

A contribution toward be considered.

The appointments are subject to the Local Government Superannuation Acts; and to the National Joint Council Scheme of Conditions of

revice.

Forms of application may be obtained from the cand must be returned not later than Friday, the May, 1961.

DAVID PRITCHARD.

Town Clerk's Office,
Harrow, Middlesex.

CITY OF PORTSMOUTH
CITY DEVELOPMENT DEPARTMENT
Applications are invited from candidates with
Intermediate A.M.T.P.I. or equivalent for appointment of Development Assistant A.P.T. Grade III
(#960-#1,140), commencing salary according to

experience.

Applicants should have a comprehensive know-ledge of Town Planning and experience in De-

cant.

Consideration will be given to the provision of housing accommodation for successful appli-

Consideration will be given to the provision of housing accumodation for successful applicant.

Application forms obtainable from City Development Officer, I Western Parade, Portsmooth, to be returned by 29th May, 1961.

METROPOLITAN POLICE

Applications are invited for the following positions in connection with the design and erection of Police Housing, Police Stations, Single Men's Hostels, Cadets' Residential Training Centres and Magistrates' Courts within the Metropolitan Police District and schemes for major alterations to various Police buildings.

ASSISTANT ARCHITECTS

Salary: £991 p.a. at age 25, rising by annual increments to £1,490 p.a. (Maximum salary on entry £1,318 p.a. at age 34 or over.)

Qualifications: Must be registered Architects.

LEADING ARCHITECTURAL ASSISTANTS

Salary: £1,048 p.a. rising by annual increments to £1,20 p.a.

Qualifications: Intermediate R.I.B.A., H.N.C. or equivalent.

ECHNICAL ASSISTANTS

Sulary: £668 p.a. at age 22 rising by annual increments to £1,20 p.a.

Qualifications: O.N.C. Intermediate R.I.B.A. or equivalent.

TECHNICAL ASSISTANTS III

Qualifications: O.N.C. International Control of the Control of the

Apply to:
Chief Clerk,
Architect & Surveyor's Department,
New Scotland Yard, S.W.L. S7252
HUYTON-WITH-ROBY FRBAN DISTRICT
COUNCIL
(Population—63,000)
Applications are invited for the appointment of a CHIEF ASSISTANT ARCHITECT at a salary in accordance with N.J.C.—A.P.T. V, £1,510 to

21,480.

Candidates must be Associates of the Royal Institute of British Architects. They should have considerable experience in the design of public buildings and handling technical administration.

Housing accommodation will be provided if re-

quired.

Applications stating age, present position, salary and date of appointment, details of experience and previous appointments, with dates, together with names and addresses of two referees to reach R. T. Chappelle, A.R.I.B.A., Architect and Housing Director, "Grasscroft," Archway Road, Huyton, by Wednesday, 24th May, 1961.

Council Offices.

Council Offices.

Council Offices Derby Road, Huyton.

Hayton.

BOROUGH OF HAMMERSMITH
ARCHITECTURAL APPOINTMENTS
ASSISTANT ARCHITECT (A.P.T. V. £1,555—
£1,535 p.a.). Applicants must be A.R.I.B.A. or hold equivalent qualification.

ARCHITECTURAL ASSISTANTS (A.P.T. IV. £1,185—£1,355 p.a.). Intermediate R.I.B.A. essential. Preference will be given to applicants who have passed Part 1 or 2 of the R.I.B.A. Final examination or have satisfactority completed a course at a school of architecture.

DRAUGHTSMAN OR TRACER (male or female). Starting salary according to age, G.C.E. qualification and experience, between £515 and £615 p.a. at 22 and rising to £820 p.a. if suitably qualified.

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BOROUGH OF CHATHAM ions are invited for the following Application

atments:—assistant Architect—from professionally qualified and suitably experienced persons. Salary within A.P.T. IV (£1,140—

£1,310).

2. ARCHITECTURAL ASSISTANT—from suitable experienced persons. Salary within

2. ABUHITEUTURAL ASSISTANT-from Sun-ably experienced persons. Salary within A.P.T. III (£760-£1,140). Applications, with the names and addresses of two referees, should be delivered to Mr. J. A. T. Richards. Borough Engineer and Surveyor, Town Hall, Chatham, not later than Saturday, 20th

Hall, Chatham, not later than Saturday, with May, 1961.
HOUSING ACCOMMODATION WILL BE AVAILABLE IN APPROPRIATE CASES.
The appointments will be (a) in accordance with the National Scheme of Conditions of Service, (b) terminable by one month's notice on either side, and (c) superannuable, subject to satisfactory medical report.
In accordance with their usual practice the Council will require the successful candidates to give an undertaking to remain in the Council's service for two years.

ROWLAND NEWNES.
Town Clerk.

Town Hall, Chatham.

CITY OF GLASGOW
ASSISTANT ARCHITECTS
Architectural and Planning Department has
imber of vacancies for qualified assistant

The Architectural and Planning Department has a number of vacancies for qualified assistant. The Department has in hand a large, varied and interesting programme of work, including Comprehensive Redevelopment, Multi-storey Flats, Schools and Civic Buildings. The work will provide scope for personal initiative in the preparation of designs and details of schemes upon which construction work will follow. The salary scale for these assistantships is up to £1,550 with placing according to experience. A five-day week is in operation. Advances up to 100 per cent. of valuation will be made available, where needed, for the purchase of suitable houses in or near Glasgow, by successful applicants. Form of application may be obtained from the Principal Administrative Officer, 20 Trongate, Glasgow, C.L.

A. G. JURY.
City Architect and Director of Planning.
87268

ROROUGH OF HESTON AND ISLEWORTH
APPOINTMENT OF
SENIOR ARCHITECTURAL ASSISTANT
Applications are invited for the permanent appointment of a Senior Architectural Assistant in the Borough Engineer and Surveyor's Department. Salary in accordance with A.P.T. Grade IV (£1,140-£1,310, plus London weighting).
Applicants must have had good experience in architectural design and building work under construction, and, other things being equal, preference will be given to applicants who have passed the examination for Associate R.I.B.A. or hold a University Degree or Diploma in architecture accepted by that Institute.
The Council is unable to assist the successful candidate with housing accommodation.
Applications are to be submitted by 22nd May, 1951, on forms to be obtained from and returned to the Borough Engineer and Surveyor, 88 Lampton Road, Hounslow.

D. MATHIESON, Tanne Clerk

D. MATHIESON, Town Clerk

Town Hall,
Hourslow, Middlesex.

WEST SUFFOLK COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
Applications are invited for the post of ASSI,
ARCHITECT within Grade A.P.T., IV-V
(£1,140-£1,480 per annum).
Applicants must be qualified Architects and
preferably have experience in Local Authority
work.

preferably have experience in Local Admiring work.

The department offers varied and interesting experience on Educational. Police and Health programmes.

N.J.C. Service Conditions; post pensionable; medical examination.

A five-day week is in operation; housing accommodation may be made available.

Application forms obtainable from the County Architect. 13 Westgate Street. Bury St. Edmunds. to be returned as soon as possible.

METROPOLITAN ROROUGH OF

BERMONDSEY

Applications are invited from persons under 51

Applications are invited from persons under 51 years of age for the following temporary appoint-

years of age for the following temporary appointments.

SENIOR ASSISTANT ARCHITECT required for about two years to design a Public Baths and later to lead a small group in the preparation of working drawings and specifications. Applicants must be qualified by examination as Associates of the R.I.B.A. Salary up to £1,565 per annum according to qualifications and experience.

ASSISTANT IN ARCHITECT'S SECTION.

per annum according to qualifications and experience.

ASSISTANT IN ARCHITECT'S SECTION. Applicants must have passed Intermediate examination of R.I.B.A. or R.I.C.S. and have experience in surveying old housing properties and preparing conversion and improvement schemes. Salary at a point in A.P.T. III or IV (1960-21.310) plus London weighting according to experience.

Applications for both appointments should be addressed to Borough Engineer and Surveyor, Municipal Offices, Spa Road, S.E.16. S7306

COUNTY BOROUGH OF GREAT YARMOUTH SCHOOLS ARCHITECT'S DEPARTMENT Applications are invited from Associate Members of the R.I.B.A. for the appointment of MINOR WORKS ARCHITECT at a salary within APT.IV £1,140 to £1,310 per annum. A car allowance of £135 per annum is also payable. The successful applicant will be required to take charge of the Minor Works Section. Assistance with removal expenses may be made in suitable cases.

Assistance with removal capeales in suitable cases.
Full details of present and past appointments, age, qualifications and experience, together with the names of two referees, should reach the Schools Architect, 22 Euston Road, Great Yarmouth, by 24th May, 1961.
D. G. FARROW.
Chief Education Officer.

22 Euston Road, Great Yarmouth.

BOROUGH OF BACUP
ARCHITECTURAL ASSISTANT
Applications are invited for the above appointment in the Borough Engineer's Department.
Salary A.P.T. III (2900-21,140). Preference will be given to candidates who have passed Parts 1 and 2 of the R.I.B.A. Examination or equivalent. The post offers special experience in the spheres of Central Area Re-Development and Industrial and Residential Development.
Housing accommodation will be provided, if necessary.

Application forms obtainable from me. Closing date, 27th May, 1961.

A. D. BOND. Town Clerk.

Municipal Offices.

STATES OF GUERNSEY
STATES ENGINEER'S DEPARTMENT
Applications are invited from suitably qualified
persons for the following appointments in the
States Engineer's Department, which has in hand
a varied and interesting programme of work.
(1) QUANTITY SURVEYOR. Salary scale
£1,180-£1,450 (subject to review).
Applicants for this post should be qualified
Quantity Surveyors and fully conversant
with the preparation of bills of quantities,
specifications, pricing and the settlement
of accounts. This is a new appointment and
the successful applicant will be required to
organise the work of this section of the
department.

organise the work of this section of the organise the work of this section of the department.

(2) ARCHITECTURAL ASSISTANTS. Salary scale £780—£1.100 (subject to review). Applicants for these posts should have passed the Intermediate Examination of the R.I.B.A. All appointments are to the Established Staff and subject to the States of Guernsey Conditions of Service, one month's notice on either side and the passing of a medical examination. Commencing salary in each case will be according to qualifications and experience. Particulars of pension and the transfer of pension rights under the Local Government Superannuation Acts are obtainable on application. Houses will be made available in appropriate cases and removal expenses refunded.

Applications, stating age, qualifications, present and previous appointments, experience and the names of two referees, should be sent to the States Supervisor, States Office. Guernsey, C.I. not later than the 22nd May, 1961.

S7342

COUNTY BOROUGH OF WEST BROMWICH

COUNTY BOROUGH OF WEST BROMWICH BOROUGH SURVEYOR'S DEPARTMENT Applications are invited for the following

Applications are invited for appointments:—
SENIOR ASSISTANT ARCHITECT. Salary A.P.T. IV (£1,140 to £1,310 per annum).
ARCHITECTURAL ASSISTANTS. Salary A.P.T. I (£645 to £815 per annum).
N.J.C. Conditions of Service, and a five-day

Applications, naming two referees, to the undersigned by 15th May, 1961.

W. H. GREENWOOD,

Borough Surveyor.

Town Hall, West Bromwich

COUNTY BOROUGH OF ST. HELENS BOROUGH ENGINEER'S DEPARTMENT— ARCHITECTURAL SECTION Applications are invited for the following

ost: --PRINCIPAL ASSISTANT ARCHITECT-APT. Grade V (£1,310-£1,480 p.a.). Applicants should be qualified Architects with ood experience in general Municipal Develop-

Applicants should be good experience in general Municipal Development.

The appointment will be subject to the provisions of Local Government Superannuation Acts.

NJC Conditions of Service, Medical Examination and will be terminable by one month's notice. The Council operates a 5-day working week.

Housing accommodation will be made available if reenired.

Applications giving details of age, qualifications, present and past appointments, details of experience and names and addresses of two referees should be forwarded to the undersigned not later than Tuesday, 16th May, 1961.

Annicants must reveal relationship to any member or senior officer of the Council.

Canvassing will disqualify.

M.L.Mun E., M.T.P.I., A.M.I. Struct.E.,

Borough Engineer & Surceyor.

Town Hall. ST. HELENS.

BOROUGH OF HENDON
BOROUGH ENGINEER AND SURVEYOR'S
Applications are invited for the following

Applications are invited for the following appointments:

(a) ARCHITECTURAL TRAINEE — General Division (Salary commencing according to age rising by annual increments, at age 18—£370 per annum). Applicants must be qualified to become probationers of the Royal Institute of British Architects (five approved subjects in the G.C.E. including two at "A" level). The successful candidate will be appointed for successful candidate will be appointed for term of three years with a three months probationary period and will be in direct contact with architectural work for Rousing, School and Public Building projects.

for Housing, School and Public Building projects.

(b) SENIOR ASSISTANT ARCHITECT—Permanent post Grade A.P.T.V. (21,310 to £1,480 plus London Weighting £45).

Applicants must be Associate Members of the Royal Institute of British Architects. The person appointed will be directly responsible to the Chief Assistant Architect, with opportunity for suitable applicants to act as Group Leaders. Previous experience in school work, housing and redevelopment, or civic buildings, will be an advantage.

National Scheme, Medical examination, Appointments terminable by one month's notice on either side.

Applications stating age, education, qualifications, experience, present appointment and salary, together with the names and addresses of two referees, must reach the Borough Engineer and Surveyor, Town Hall, Hendon, N.W.4, by 29th May, 1951. Canvassing will disqualify.

Rendon.

Town Hall, Hendon, N.W.4.

ROROUGH OF WILLESDEN
Applications are invited for the following permanent appointments:

(a) ARCHITECTURAL ASSISTANT, within Grade A.P.T. III (2950-21.140 p.a.).

(b) ARCHITECTURAL ASSISTANT, within Grade A.P.T. III (2950-21.140 p.a.).

(c) ARCHITECTURAL ASSISTANT, within Grade A.P.T. II (2650-2615 p.a.).

London Weighting is payable in addition to the above salaries.

Candidates for post "A" must be Associates of the R.I.B.A. and Candidates for post "B" and "C" should have passed the Intermediate Examination of the R.I.B.A.

A programme of interesting and varied works is expected to continue for many years and opportunities are offered to imaginative designers of any age with a contemporary and practical outlook.

The appointments will be superannuable and

outlook.

The appointments will be superannuable and subject to the National Conditions of Service for a five-day week, but the Council is unable to assist with housing accommodation.

Forms of application and conditions of appointment may be obtained from the Borough Engineer and Surveyor, Town Hall, Dyne Road, Kilburn, N.W.6. Applications to be returned to the undersigned not later than 10 a.m. on Monday, 29th May, 1961.

R. S. FORSTER.

COUNTY BOROUGH OF EASTBOURNE
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT
Appointment of ASSISTANT ARCHITECT
Salary Grade A.P.T. III—2906—21,140 per annum.
Applications are invited for the above appointment

Applicants must have passed the R.I.B.A. Final

Examination.

Housing accommodation will be provided if

Housing accommodation will be provided if required.
Full particulars of age, present position, qualifications and experience, together with the names of two referees, to be sent to the undersigned not later than Friday, 19th May, 1961.
R. WILLIAMS, B.SC., A.M.I.C.E., Borough Engineer and Surveyor.
2/4. Saffrons Road,
Eastbourne.
28th April, 1961.

Eastbourne. 7448

BOROUGH OF BRIDGWATER
BOROUGH ARCHITECT'S DEPARTMENT
Applications are invited for the following posts:
(a) ASSISTANT ARCHITECT, Grade III/IV
A.P.T. 2960—21.310.
(b) ARCHITECTURAL ASSISTANT, Grade II
A.P.T. 2815—2960.
(c) QUANTITY SURVEYOR, Grade IV A.P.T.,
£1.140—21.310.
(d) ASSISTANT OUANTITY SURVEYOR, Grade
III A.P.T., 2960—£1.140.
(e) QUANTITY SURVEYING ASSISTANT, Grade
III A.P.T., 2960—£1.140.
(f) ASSISTANT OUANTITY SURVEYOR, Grade
III A.P.T., 2960—£1.140.
(e) QUANTITY SURVEYING ASSISTANT, Grade
III A.P.T., 2960—£1.140.
(f) ASSISTANT OUANTITY SURVEYOR, Grade
III A.P.T., 2960—£1.140.
(e) QUANTITY SURVEYING ASSISTANT, Grade
III A.P.T., 2960—£1.140.
(f) ASSISTANT OUANTITY SURVEYOR GRADE
III A.P.T., 2960—£1.140.
(g) ASSISTANT OUANTITY SURVEYOR GRADE
III A.P.T., 2960—£1.140.
(h) ASSISTANT OUANTITY SURVEYOR GRADE
III A.P.

Town Hall. Bridgwater. 27th April, 1961.

architects and assistants

A H Anderson limited

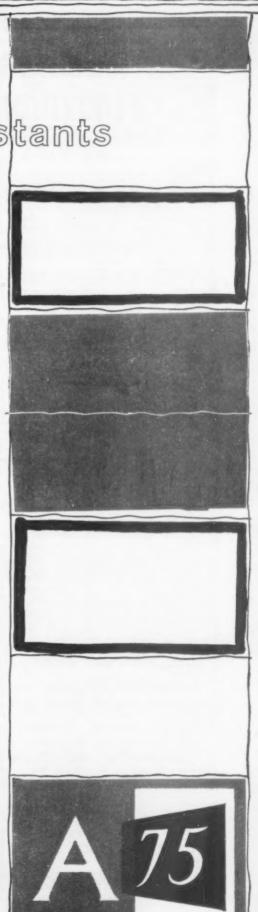
This Company provides a complete Design and Management Service to the Architect and/or the Building Owner in connection with its method of construction known as A.75. Having commenced as an all-timber system up to two storeys, it has now been extended to incorporate a steel frame with precast concrete floors and roof, taking it up to five storeys. The Company-which has on hand an extensive programme of single and multiple storey schools, office blocks, hospitals, and other buildings throughout the country-requires a number of architects who believe that their 'forte' lies as much in their technical and executive competence as in their design ability.

The successful applicants will have real opportunities of applying the professional attitude to and within the building industry.

Commencing salaries £960 to £1,750 according to age and experience.

Applications in writing to Mr A.H. Anderson,
A.H. Anderson Limited, 58 Victoria Street, London SWl.
If preferred, applications may be telephoned to
Mr Anderson's personal secretary, TATe Gallery 2192.





WHISTON RURAL DISTRICT COUNCIL

WHISTON RURAL DISTRICT COURSE.
Applications are invited for the following position in the Office of the Engineer and Surveyor:—
CHIEF ASSISTANT ARCHITECT, A.P.T. IV

(£1,140-£1,310 p.a.).
Applicants must be A.R.I.B.A. and have had experience in Local Authority housing design and maintenance and other public building works.
Housing accommodation available if required. Fixed sum car allowance of £108 p.a.
The Council operate a five-day week.
Applications stating age, qualifications, training and experience, present appointment and salary with the names of two referees, to the undersigned, by 18th May, 1961.

J. R. HENLEY,
Clerk of the Council.

Council Offices, Delph Lane, Whiston, Prescot, Lanes.

Prescot,
Lanes.

Prescot,
Lanes.

NORTH WEST METROPOLITAN REGIONAL
HOSPITAL BOARD

ARCHITECT'S DEPARTMENT

ASSISTANT BUILDING SURVEYOR required for work in connection with expanding hospital building programme. A surveyor having good all-round previous experience is required to assist in the management of major building contracts and whose main duties will be the preparation of enquiries in respect of specialist work connected with such contracts.

Applicants must be corporate members of the R.I.C.S. (Building Sub-division). Salary scale 2945—21,560.

APPLY, stating age, qualifications (with dates) and experience, with names of two referees, to the Secretary, North West Metropolitan Regional Hospital Board, 40 Eastbourne Terrace, W.2. by 26th May, 1961. quoting ref. 925.

CITY OF BRADFORD

TOWN PLANNING ASSISTANT—POST 57
APT. IIIIV (9690—21,310)
Applications are invited for the above superannuable appointment in the City Engineer and Surveyor's Department.

Candidates should have passed the Final examination of the appropriate professional body, and have had general experience of technical work in a planning office.

Application forms obtainable from the City Engineer and Surveyor, Town Hall, Bradford, 1, together with three testimonials, should reach me by Friday, 26th May, 1961.

HENRY PATTEN,
Town Hall,
Bradford, 1.

Town Hall, Bradford, 1.

Bradford, I.

BOROUGH OF WARWICK
Applications are invited for the following appointments:

(1) ARCHITECT TO THE BOROUGH SURVEYOR:
Salary within Grade A.P.T. IV. (£1.140—£1.319) according to ability and experience. The person appointed will be fully responsible for the architectural section of the department. Applicants must be Associate Members of R.I.B.A., with some years of post-graduate experience.

R.I.B.A., with some years of post-graduate experience.

A lump sum car allowance of £120 per annum is made and the Council will assist with housing accommodation if required.

(2) ARCHITECTURAL ASSISTANT.

Salary within Grade A.P.T. III (£960—£1,140) and Casual Car User allowance.

Applicants should be at least Intermediate Examination level.

Roth the above appointments are subject to the N.J.C. Conditions of Service, Local Government Superannuation Acts, and to the passing of a Medical Examination, Applications stating age, qualifications, training and experience to be delivered to the undersigned with names of two referees by Wednesday, 17th May, 1961.

C. E. BROWN, A.M. I.Mun.E.,

Borough Engineer and Surveyor.

23, Jury Street,

Warwick.

EXETER CITY COUNCIL

Warwick. 7413

EXETER CITY COUNCIL.
CITY ARCHITECT'S DEPARTMENT
Appheations are invited for the following appointments on the established staff to deal with an interesting and varied programme of local authority works:

(a) PRINCIPAL ASSISTANT ARCHITECT (DESIGN).
Salary within Scale "B" (£1,415—£1,670).

(b) PRINCIPAL ASSISTANT ARCHITECT Salary within Scale "A" (£1,370—£1,565).
For appointment (a) applicants must have had considerable experience in all classes of educational and municipal buildings and multi-storey flats. Experience in civic design and redevelopment areas would be an advantage.
For appointment (b) applicants must have had considerable experience in either schools and technical colleges or general municipal buildings and multi-storey flats.
PROVISION OF HOUSING ACCOMMODATION will be considered and removal expenses will be paid.
Applicants must be Associate members of the RLBA NJC Conditions of service.

will be paid.

Applicants must be Associate members of the R.I.B.A. N.J.C. Conditions of service. Successful candidates will be required to pass a medical

candidates will be required to pass a medical examination.
Applications stating age, experience and qualifications, should be received by the City Architect, Municipal Offices. Exeter, not later than the 18th May, 1961.

METROPOLITAN BOROUGH OF GREENWICH APPOINTMENT OF PRINCIPAL ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of a PRINCIPAL ARCHITECTURAL ASSISTANT in the Borough Engineer and Surveyor's Department. Salary grade A.P.T. V (£1,355-£1,525 per annum, including London weighting). Commencing salary in accordance with qualifications and

experience.
Candidates should be Registered Architects, preferably Associates of the R.I.B.A., with experience
in housing and other municipal projects.
Application forms obtainable from the undersigned to be returned by noon on Thursday,

Town Hall,
Greenwich, S.E.10.

CITY OF PETERBOROUGH
Applications are invited from qualified Architects with Local Government experience for the appointment of a SENIOR ASSISTANT ARCHITECT in Grade IV, A.P. & T. (£1,140 to £1,310 by three increments), together with fixed carallowance of £108 per annum. Housing accommodation, if desired, will be provided.
Forms of application from City Engineer, Town Hall, Peterborough. Closing date for applications: 19th May, 1961.

C. PETER CLARKE, Town Clerk.

Town Hall, Peterborough. April, 1961.

Town Hall,
Peterborough.

April, 1961.

S7285

April, 1961.

Applications are invited for the following appointments in the Architectural Section of the Borough Engineer and Surveyor's Department:

(a) ARCHITECTURAL ASSISTANT — Grades III.19—(4969—41,510 per annum).

(b) GENERAL ARCHITECTURAL ASSISTANT—Grade II—(2815—4960 per annum).

(c) JUNIOR ARCHITECTURAL ASSISTANT—Grade AP.T. —(4664—2815 per annum).

Applicants for appointment (a) must be Corporate Members of the R.I.B.A. and for (b) must have passed the Intermediate Examination of the R.I.B.A., whilst for appointment (c) details of training and experience should be stated.

A house on service tenancy may be rented by the successful applicant for appointment (a) and it is the Corporation's wish that the persons appointed shall live within the Borough.

Applications stating age, marital state, training, past and present appointments with salary, and experience, together with the names of three referees should be sent to the Borough Engineer and Surveyor. Carr Bank, Mansfield.

Carr Bank.

Mansfield.

Carr Bank. Mansfield, Notts.

WEST SUFFOLK COUNTY COUNCIL

WEST SUFFOLK COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT
APPOINTMENT OF AREA PLANNING
OFFICER
Applications are invited for the angointment
of Area Planning Officer. Salary within A.P.T.
Grade IV of the National Seeles £1,140-£1,310.
Applicants must have passed the Final Examination of the Town Planning Institute or hold a
Diploma of a recognised school. The successful
applicant will be responsible for development
control and committee work in the Sudbury Area.
N.J.C. service conditions; car allowance; post
pensionable; medical examination. Planning
administration is centralised in Bury St. Edmunds.
Application forms obtainable from J. M. Gorst,
M.T.P.I., M.I.M.n.E., County Planning Officer,
Shire Hall, Bury St. Edmunds, to be returned by
22nd May, 1961.

COUNTY BOROUGH OF BRIGHTON

COUNTY BOROUGH OF BRIGHTON
ASSISTANT ARCHITECTS
Applications are invited for the appointment of TWO ASSISTANT ARCHITECTS, Grade A.P.T. V (21,310—21,480). Applicants must have passed the R.I.B.A. Final Examination, or the special Final Examination. Breference will be given to candidates who have had experience in large contracts for Colleges of Technology and Colleges of Art.
The commencing salary will be adjusted to successful candidates.
The Corporation will refund 50 per cent, of the successful candidates.
The Corporation will refund 50 per cent, of the successful candidates removal expenses.
Application forms may be obtained from D. J. Howe, M.I.C.E., M.I.Mun.E., Borough Surveyor, Engineer & Planning Officer, and must be returned to him at 26-30, King's Road, Brighton, by noon on 19th May, 1961.

W. D. DODD.

W. O. DODD. Town Clerk

METROPOLITAN BOROUGH OF POPLAR ASSISTANT ARCHITECTS (full time or partitime required by Poplar Borough Council for immediate appointment. Salary scale A.P.T. III/IV (2960-11.140 p.a., £1.140-£1.510 p.a. plus 245 p.a. "weighting"). Commencing salary according to qualifications and experiences applied to the commencing salary according to qualifications and experiences applied to the commencing salary according to qualifications and experiences applied to the commencing salary according to publication forms from Borough Engineer and Surveyor, Poplar Town Hall, Bow Road, £3. 87427

LONDON ELECTRICITY BOARD
ARCHITECTURAL DRAUGHTSMAN
Applications are invited for the above position
under the supervision of an Architect in the
Chief Engineer's Department in Central London
(Waterloo).

Chief Engineer's Department in Central London (Waterloo).

Applicants should be neat and capable draughtsmen and preferably have had several years' experience in an Architect's Office.

The post is graded under Schedule "B" of the National Joint Board Agreement, as Grade 15. Class BX, and the commencing salary will be in the range of £780 to £1,065 per annum, inclusive of London Allowance.

Application form obtainable from the Construction Engineer, Lesco House, Stamford Street, London, S.E.I. Please quote ref. PER/V/3230/A.

7390

Street, London, S.E.I. Please quote ref. PER/V 3230/A.

CITY OF NOTTINGHAM

ESTATES & HOUSING COMMITTEE Applications are invited for the following appointments in the Chief Architect's Section of the Estates Department:—The following appointments in the Chief Architect's Section of the Estates Department:—The following appointments in the Chief Architect's Section of the Estates Department:—The Grade IV, £1.40—£1.310.

(a) ASSISTANT ARCHITECTS, A.P.T. Grade IV, £1.40—£1.310.

(c) ARCHITECTURAL ASSISTANT, A.P.T. Grade II, £315—£960.

(d) ARCHITECTURAL ASSISTANT, A.P.T. Grade I, £645—£615.

Applicants for (a) should preferably be Associates of the Royal Institute of British Architects, or if not so qualified, have had appropriate professional experience, and for (b) should preferably have passed parts 1 and 2 of the R.I.B.A. Final Examination. Applicants for (c) and (d) should have passed parts 1 and 2 of the R.I.B.A. Commencing salary in each case will be in accordance with qualifications and experience.

There is a large and interesting programme of comprehensive estate development and redevelopment schemes, including multi-storey dwellings, shopping centres, and all ancillary buildings.

The architects and assistants appointed will

buildings.

The architects and assistants appointed will work in small self-contained teams under the general direction of a Group Leader and will be responsible for the design, construction and management of projects.

The appointments will be subject to the National Joint Council's Scheme of Conditions of Service.

National Joint Council's Scaleshood Service.

Applications, stating age, qualifications, experience, present appointment and salary, and naming two referees, should be sent to the Estates Surveyor & Valuer. The Guildhall. Nottingham, by Tuesday, 30th May, 1961.

T. J. OWEN.

Town Clerk.

The Guildhall, Nottingham.

Notingham.

Notingham.

Notingham.

Notingham.

ROROUGH OF RUGBY

APPOINTMENT OF ASSISTANT ARCHITECT
Applications are invited for the above appointment in the Borough Engineer and Surveyor's Department, which has an interesting and varied programme of work.

The commencing salary will depend on qualifications and experience and will be within A.P.T.

Grade IV (21,140—21,310). Housing accommodation will be provided if required and a car allowance on the essential user scale will be paid.

Further particulars and form of application may be obtained from the Borough Engineer and Surveyor, Burford House, Church Walk, Rugby, to whom completed amplications must be sent not later than 20th May, 1961.

T. L. DUFFY.

Town Clerk.

7378

SENIOR ASSISTANT PLANNING OFFICERS required in the City Surveyor & Engineer's Department at a salary within J.N.C. Scale "R" (c1.420/c1.670). Candidates must be appropriately qualified by examination and must have had considerable experience in the Planning and Development work of a local authority.

These appointments offer practical experience on large scale projects. Housing accommodation and removal expenses.

Applications, stating age, education, qualifications and experience, with the names of three referees, to the Town Clerk, Town Hall, Manchester, 2, not later than 29th May, 1961. 7371

APPOINTMENT OF WORTHING
APPOINTMENT OF ASSISTANT ARCHITECT
Applications are invited for the appointment of
an ASSISTANT ARCHITECT On Grade A.P.T. II
835-6960 per annum.
Candidates should have had experience in an
Architect's Office and be training for professional
examinations.
The appointment will be subject to the National
Scheme of Conditions of Service of Local Government Officers to the provisions of the Local
Government Suncrannuation Acts, and to the
successful candidate passing satisfactorily a
medical examination.
Applications, stating age, qualifications, exnerience, oresent and past appointments, with
dates, and accompanied by copies of two recent
testimonals, should be submitted to the Borough
Engineer and Surveyor, Town Hall, Worthing, not
later than the 17th May, 1961.

Town Clerk.
7434

COUNTY BOROUGH OF EAST HAM

ARCHITECTS

Applications are invited for the following temporary appointments:—

Senior Assistant Architects Salary £1330 - £1500

Salaries in excess of the minimum may be paid according to qualifications and experience. The appointments are for work on a new Technical College costing more than £700,000 and are expected to be for a period of not less than two years.

Further details and application forms returnable by 26th May 1961 from the Town Clerk, Town Hall, East Ham, E.6.



ESSO have a vacancy for a Building Surveyor, preferably between 25-30, with either inter or final R.I.C.S.

This position occurs in the Head Office Architect's Group, and duties will include the co-ordination of service station construction throughout the U.K. Sound knowledge of building construction and an imaginative outlook essential. There is a contributory Pension Plan, a Sickness & Accident Benefit Plan, and a comprehensive Staff Development Programme. Applications giving age, qualifications, experience and present salary should be sent to: The Manager, Recruitment and Training, Esso Petroleum Company Limited, 16 Charles II Street, London, S.W.1, quoting reference no. 311/AJ.

APPOINTMENT OF ARCHITECTS

LEEDS REGIONAL HOSPITAL BOARD

(Regional Architect-P. B. Nash, A.R.I.B.A.)

In order to deal with a large capital programme spread over the next 20 years the Regional Architect's Department has been expanded to earry out a proportion of this work. The work offers scope to architects with initiative and particularly those with an appreciation of contemporary architecture. The work to be carried out includes complete new hospitals as well as many associated buildings of wide variety.

Applications are invited for the under mentioned appointments: -

(a) Senior Assistant Architects-

Satary-£1,300 x 60(5)-£1,600.

Candidates must possess the ability to handle contracts valued at £100,000 or more and experience of contemporary design is essential.

(b) Assistant Architects— Salary—£905 x 35(1) x 45(6) x 50(2)—£1,310.

Candidates for the above appointments must be registered architects and associate members of the R.I.B.A.

(Qualified architects awaiting registration may be appointed as Architectural Assistants at a salary of £865 per annum.)

(c) Architectural Assistants—

Salary -£625 x 30(8) x 35(1)-£900.

Candidates must have passed the Intermediate Examination of the R.I.B.A.

Applications stating age, qualifications, previous experience and the names of two referees to the Secretary, Park Parade, Harrogate by 19th May, 1961.

WANTED LONDON

by well-known multiple Company

YOUNG ARCHITECT

qualified or up to Final Standard. Good prospects, Superannuation. (If required, Company Flat available).

2. ARCHITECTURAL DRAUGHTSMAN

with experience and ability to design shop fronts and interiors. Excellent opening for young man with ambition.

Write stating age, qualifications and experience to:

J. S. ABBOTT, Managing Director,

LILLEY & SKINNER (HOLDINGS) LTD.

KING'S CROSS. N.I.

All Applications will be treated in strict confidence.

COUNTY ARCHITECT'S DEPARTMENT ARCHITECTURAL ASSISTANTS (within the salary range 2645-2960 according to experience and ability) Applications are invited from Architectural Assistants for appointments to the permanent staff of the County Architect's Department, which is engaged on a large and varied programme of major projects.

major projects.

Applicants should have attained Intermediate R.I.B.A. standard and should have a reasonably varied experience.

Application forms and details of appointment obtainable from the County Architect, P.O. Box 26, County Hall, Preston, should be returned by 26th May, 1961.

SENIOR ASSISTANT ARCHITECTS
Salary range up to £1.490 (max A.P.T. V)
Applications are invited for above appointments in City Architect and Planning Officer's Department. Commencing salary according to ability and experience
Applicants should be qualified and be capable of supervising contracts from commencement to completion, and of co-ordinating the work of all sub-contractors.

The programme of work is varied and interest ing, and offers considerable scope for initiative and experience. The successful candidates will be engaged on one of the following:

Housing
General Works
Public Buildings
Education.

Housing accommodation available if necessary.
Applications, with the names of two referees, to the City Architect and Planning Officer, Municipal Buildings, Canterbury, by Friday, 26th May, 1961.
Canvassing will disqualify.

Town Clerk.

WORCESTERSHIRE COUNTY COUNCIL
ASSISTANT PLANNING OFFICERS
SCALE "A" (£1,365—£1,566)
Two experienced and qualified Planning Officers
are required to take charge of schemes for the
redevelopment of shopping centres and for town
development in connection with Birmingham
Overspill.
Forms of application to be obtained from the
County Planning Officer, County Buildings.
Worcester, and to be returned to him not later
than Thursday, 25th May, 1961. (M.92.) S7289

METROPOLITAN BOROUGH OF
WANDSWORTH
SENIOR ASSISTANT ARCHITECT
Grade A.P.T. V (21,355 rising to 21,525). Applicants must be A.R.I.B.A. with experience in design and planning of multi-storey blocks of flats and supervision of their erection. Forms from Borough Engineer returnable to me by 22nd May, 1961.

J. NOEL MARTIN,
J. NOEL MARTIN,
Town Clerk.
7430

CITY PLANNING AND ARCHITECTURAL DEPARTMENT
Applications are invited for the appointment of CHIEF ARCHITECTURAL ASSISTANT at a salary within the Grade A.P.T. V (21.30-21.480). Applicants must be Associate Members of the Royal Institute of British Architects and must have had good experience in the design and construction of municipal housing and other works, administration, and be capable of supervising the staff of the Architectural section. The programme of building works is extensive and interesting.
The Council is prepared to provide housing accommodation if required.
Applications stating age, qualifications and experience, together with the names and addresses of three referees should be addressed to the City Planning Officer and Architect, 7 North Parade Buildings, Bath, not later than Wednesday, the 31st May, 1961.

JARED E. DIXON, Trown Clerk.

JARED E. DIXON, Town Clerk.

COUNTY BOROUGH OF DEWSBURY
APPOINTMENT OF BOROUGH ARCHITECT
APPOINTMENT OF BOROUGH ARCHITECT
Applications are invited from members of the
Royal Institute of British Architects for the
appointment of Borough Architect and Buildings
Surveyor at the commencing salary of £2.025
rising by annual increments of £75 to £2.325, with
a car allowance of £112 6s, per annum. Housing
accommodation will be made available for the
successful applicant, if required.
Further particulars and conditions of appointment can be obtained from the undersigned, by
whom applications must be received not later
than the 27th May, 1961.

A. NORMAN JAMES.
Town Hall.

Town Hall, Dewsbury, 3rd May, 1961,

AN OPPORTUNITY TO TEACH TECHNICAL SUBJECTS IN SECONDARY SCHOOLS
The London County Council will be pleased to consider applications for salaried appointments in its teaching service from men wishing to teach woodwork, metalwork, technical drawing or engineering subjects. To meet in particular the needs of men in industry with no teacher training and little or no teaching experience a full-time residential course (two weeks commencing on 4th September, 1961, and a further week in December), has been arranged at Shore-ditch Training College, Coopers Hill, Englefield Green, Egham, Surrey. Accepted candidates for appointment will be paid from the beginning of the course. Burnham Scale (£558-£1,051 including London allowance)-commencing salary will depend on qualifications and experience. Qualifications needed are Higher National Diploma with at least two years' industrial experience or Higher National Certificate or an appropriate Full Technological Certificate of City and Guilds of London Institute with at least five years experience. The cost of board and lodging for the course is expected to be £18, half of which will be refunded together with reasonable travelling expenses, on satisfactory completion of the course. For further particulars and application form send a stamped addressed foolscap envelope to Education Officer (TS1/A/1151/5). County Half, Westminster Bridge, S.E.I. immediately. 7493

THE URBAN DISTRICT COUNCIL OF FELLING
SURVEYOR'S DEPARTMENT
APPOINTMENT OF ASSISTANT ARCHITECT
Applications are invited for the appointment as Assistant Architect in the Department of the Surveyor. The salary payable will be within Grade A-PT. IV of the National Salary Scales (£1,140-£1,310 per annum). Applicants must have passed the Final Examination of the Royal Institute of British Architects.
Forms of application together with particulars and conditions of employment can be obtained from the undersigned, to whom they must be returned not later than the 26th May 1961.
Housing accommodation will be provided by the Council if required or alternatively the Council will grant a 100 per cent, mortgage for the purchase of an approved private dwellinghouse.

Canvassing will disqualify any applicant.

JOHN DONKIN,

Clerk of the Council

Council Buildings, Felling, Gateshead, 10.

The Landscape of Roads

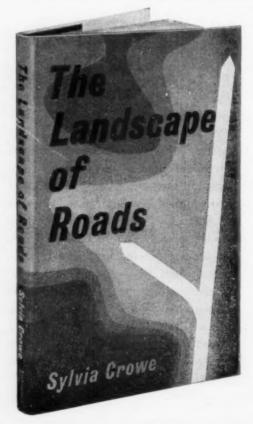
SYLVIA CROWE PPILA

£230 million will be spent during the next three years on the construction and improvement of roads in Britain. This vast programme is of national interest, not only because new roads are so badly needed, but also because if they are not handled with infinite care, they will certainly ruin much of what remains of our landscape.

Following her successful books, Tomorrow's Landscape, and The Landscape of Power, Miss Crowe here turns to the landscape of roads and motorways. Writing with her usual lucidity and forcefulness, and with numerous drawings and photographs, she shows that if roads are regarded merely as an engineering problem, their effect on the landscape will surely be disastrous; road design and construction demand the combined skills of a team of experts: planners, architects and landscape architects, as well as highway engineers. Only when such a team is brought together at the outset will we obtain roads which are absorbed naturally into the existing landscape pattern; and which will be vastly more pleasant to travel on, safer, and not necessarily more costly than alien constructions which make no inflection to the landscape through which they pass.

> Size 9 × 51 ins. 134 pages. 70 half-tone illustrations. 18s. 6d. net. Postage 1s. Just published

The Architectural Press, 9-13 Queen Anne's Gate, S.W.1.



BOROUGH OF WESTON-SUPER-MARE
ARCHITECT ASSISTANT
Applications are invited for this appointment from suitably qualified persons with experience in the design and maintenance of Public Buildings. J.N.C. Conditions, Salary Grade A.P.T. III (2960—11,140). Superannuated Housing accommodation provided if necessary. Removal expenses repaid over period of two years. Applications stating age, education, qualifications, appointments held (with dates and salaries) and two referees to Borough Engineer, Town Hall, Weston-super-Mare, not later than May 25rd, 1961.

AIR MINISTRY require SENIOR TAKERS OFF in Quantities Division, London. Must have wide experience of all classes of work and preferably be A.R.I.C.S. (Sub-Division III Quantities). Salaries (inner London scale) from £1,448 to £2,015. Commencing salary A.Q.E. Non-pensionable but long term with prospects of establishment and/or promotion. Five-day week. 22 days paid leave. Applicants must be natural born British subjects. Forms from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.I. Quoting J.340/OA.

5. King Mreet, London, S.W.I. Quoting 1,340/0A.

LANCASHIRE COUNTY COUNCIL PLANNING DEPARTMENT Applications are invited for the following posts in the ST. ANNES-ON-SEA, WIGAN and BURY Divisional Planning Offices.

(a) SECTIONAL PLANNING OFFICERS at Bury and Wigan, A.P.T. IV (£1,40-£1,510 per annum). Candidates should possess an appropriate University Degree and/or a recognised qualification in architecture, civil engineering, surveying or planning. Experience in the preparation of Town Maps and schemes for areas of comprehensive redevelopment is desirable and candidates should possess a sound knowledge of town and country planning legislation.

(b) PLANNING ASSISTANTS at Wigan and St. Annes-on-Sea, A.P.T. I to A.P.T. IV (£645-£1,310). Candidates should have an appropriate University Degree and/or be studying for or possess a recognised qualification in architecture, surveying, engineering or town planning.

Disturbance allowances and removal expenses to a maximum of £125 may be granted in approved cases.

cases.

Applications stating post applied for and giving age. qualifications, present appointment, experience, etc., and two referees to the County Planning Officer (S), East Cliff County Offices, Preston, by the 24th May, 1961.

CITY OF LEICESTER
CITY SURVEYOR'S DEPARTMENT
Applications are invited for the appointment
of the following ASSISTANTS in my Maintenance

Section:—
(a) 1—Grade A.P.T. IV (£1,140—£1,310 per annum),
(b) 1—Grade A.P.T. III (£960—£1,140 per

annum).

(c) 1—Grade A.P.T. II (£815—£960 per annum).

(d) 1—Learner, General Division (£220—£360 per

(d) 1—Learner, General Division (2220—2500 per annum).

Candidates for (a), (b) and (c) should be suitably qualified by Examination and have a good knowledge of and be experienced in the maintenance of public buildings, alterations and additions to properties, preparation of plans, specifications, estimates, schedules, etc. Some knowledge off Work Study will be an advantage. The Learner's duties will include surveys, tracings, etc.

The appointments are subject to the Local Government Superannuation Acts and the passing of a medical examination.

Applications, stating age, qualifications and experience, and the names of two referres, should be forwarded to the undersigned by 22nd May, 1964

Housing accommodation may be made available if required.

JOHN L. BECKETT, M.I.C.E., City Surveyor.

Leicester

Leicester. 7435

BOROUGH ARCHITECT'S DEPARTMENT Applications are invited for the following ermanent posts:—

(a) SENIOR ASSISTANT PLANNING OFFICER (LANDSCAPE). Scale "A" (£1,380-£1,565).

Applicants should be qualified Landscape Architects and preferably members of the T.P.I. to be in charge of small landscape group, with considerable opportunity for preparing and carrying through schemes of urban landscaping.

(b) ASSISTANT PLANNING OFFICER, Grade A.P.T V (£1,310-£1,480).

Anolicants should be members of the T.P.I. and preferably R.I.B.A., experienced in the redevelopment of central urban areas.

T.F.I. areas in the redevelopment of central areas.
Commencing salary within grades according to experience and qualifications.
Housing accommodation available in approved cases, and approved removal expenses reimbursed up to a maximum of £50.
Application forms from the Borough Architect, Civic Centre. Southampton, returnable by 22nd May, 1961.

HERTFORDSHIRE COUNTY COUNCIL STEVENAGE BY PASS Applications are invited for the appointment of QUANTITY SURVEYOR at a salary of £1.385

QUANTITI STATES OF THE CONTROL OF TH

LEADING ASSISTANT
ARCHITECT
ARCHITECT
ARCHITECT
LEADING ASSISTANT ARCHITECT in the office of the Architect, Eastern Region, British Railways, at King's Cross Station. The office is engaged on a wide range of interesting buildings, and gives responsibility for design, administration and site supervision to those with ability. Applicants should be qualified with some years' practical experience. Starting salary £1,230 per annum. Modern working conditions, five-day week and substantial rail travel concessions. Apply in writing to the Architect, British Railways, Eastern Region, King's Cross Station, London. N.1.

BOROUGH OF CHELSEA

BUILDING SURVEYOR (A.P.T. III-IV)
2960 to £1,310 plus £45 p.a. London "weighting "
Applications are invited for the above appointment in the Borough Engineer and Surveyor's
Department. Applicants must be A.R.I.C.S.
(Building) and have had good general expérience. Council operates five-day week. Forms of application from the Borough Engineer and Surveyor, Town Hall, King's Road, S.W.3. to be returned not later than 19th May. 7374

WARWICKSHIRE COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
APPOINTMENT OF GROUP ARCHITECT
Grade "C"-21,560-£1,255

Applications are invited from qualified and experienced architects for the appointment of a Group Architect for Educational projects. The post is one of responsibility requiring a high standard of design ability in all forms of construction. Experience in the organisation and day-to-day running of a group dealing with large projects is essential.

The Council have schemes for the payment of removal expenses and a lodging allowance to married officers. Five-day week worked.

Application forms and full conditions applicable to the appointment can be obtained from Eric Davies, F.R.I.B.A., A.M.T.P.I., County Architect, Shire Hall.

Warwick.

Shire Hall, Warwick. May, 1961.

May, 1961.

BOROUGH OF BIDEFORD
ARCHITECTURAL ASSISTANT
The Borough Council invite applications for the post of temporary Architectural Assistant. The period of appointment will be not less than nine months and salary will be according to qualifications and experience, up to A.P.T. Grade H.

The Council are also prepared to receive from Registered Architects offers of architectural assistance on a part-time, or fees, basis.
Applications and offers must reach the undersigned not later than the first post on Monday, the 29th May, 1961.

L. B. GALLIFORD,

L. B. GALLIFORD, Town Clerk

Municipal Buildings,
Bideford, Devon.

4th May, 1961.

COUNTY BOROUGH OF EAST HAM
SENIOR ASSISTANT PLANNING OFFICER
Grade A.P.T. II—e315 to 4960
(plus London Weighting)
Vacancy in Borough Engineer's Department.
Salary above misimum payable according to quaiffications and experience.
A subsistence allowance may also be paid over
a reasonable period to the person appointed if nable to obtain stitable housing accommodation, necessitating the maintenance of two homes.
Further details and application form (returnable within 10 days) from the Town Clerk, Town Hall, East Ham. E.6.

CHELMSFORD CORPORATION

CHELMSFORD CORPORATION

The following vacancy exists in a progressive and rapidly growing county town. The capital estimates for the year include schemes which will cost some £3 million and staff are encouraged to accept responsibility.

JUNIOR ARCHITECTURAL ASSISTANT A.P.T. I.III—£815—£1,140

Half approved removal expenses offered; commencing salary will depend upon qualifications and experience.

For further particulars write to Borough Engineer, Municipal Offices, Coval Lane, Chelmsford. Closing date 24th May. 1961.

B. A. FRANCIS.

Town Clerk.

COUNTY BOROUGH OF BOLTON (Second Advertisement)

COUNTY BOROUGH OF BULLLAN
Applications are invited for the new appointment of a PLANNING OFFICER who will be a
Chief Executive Officer responsible to the Council
for all the planning functions of the Authority.
Salary £2,240-£2,655.
Terms and conditions of appointment and particulars of duties together with form of application may be obtained from me. Completed
forms must be returned by 31st May.

PHILIP S. RENNISON.

Town Clerk.

7669

CITY OF OXFORD
CITY ARCHITECT AND
PLANNING OFFICER'S DEPARTMENT
Applications are invited for the folowing posts:
SENIOR ARCHITECTURAL ASSISTANT,
A.P.T. Grade V (£1,310-£1,480).
ARCHITECTURAL ASSISTANT, A.P.T. Grade
III IV (£960-£1,140), (£1,140-£1,510).
Suitable housing accommodation, if required,
will be provided by the Council for the above
posts.

will be provided by the Council for the above posts.

Applicants must be Members of the Royal Institute of British Architects, should have several years experience and possess a wide knowledge of modern methods of construction and contract procedure and must be capable of carrying through contracts from sketch stage to completion with minimum supervision. A high standard of design ability and a keen interest in contracts from sketch design onwards. The Senior Architectural Assistants are encouraged to control their own contracts from sketch design onwards. The Senior Architectural Assistants will be engaged minity on educational work in the first instance. The appointments will be subject to the Atomical Conditions of Service and the successful candidates will be required to pass a medical examination. Forms to be obtained from the City Architect and Planning Officer, Town Hall, Oxford. Closing date—26th May, 1961.

Town Hall.

Oxford. 7476

Town Hall.
Oxford.

Town Cierk.

7476

BASILDON DEVELOPMENT CORPORATION
DEPARTMENT OF ARCHITECTURE AND
Applications are invited for the appointment of
SENIOR ARCHITECT, Grade A.P.T. IX (£1.718£1.975 per annum).
The successful applicant will be responsible for
the work of the Town Centre and Industrial
section and must have considerable design
ability, experience in the administration of large
Contracts, and be capable of leading teams engaged on this work.
The New Town is at present about halfway
towards an ultimate population of 106,000 and
the post offers an exciting opportunity for an
Architect of outstanding ability and initiative.
A house or flat is available.
Applications giving full details should be returned to the General Manager, Basildon Development Corporation, Gifford House, Basildon,
Essex, by not later than Monday, 22nd May, 1961.

BASILDON DEVELOPMENT CORPORATION

BASILDON DEVELOPMENT CORPORATION DEPARTMENT OF ARCHITECTURE AND PLANNING Applications are invited for the following

Applications are invited for the following appointments:—

(i) SENIOR LANDSCAPE ARCHITECT, Grade A.P.T. VI VII (£1.305—£1.670 per annum).

(ii) LANDSCAPE ARCHITECTS, Grade A.P.T. II/IV (£815—£1.300 per annum).

Appointment (i) is for a Senior Landscape Architect with outstanding design ability to lead a group engaged on Master Plan and detail landscape design for all development at Basildon, which has only reached the halfway stage towards becoming the largest New Town with an utilimate population of 106,000.

The post provides an excellent opportunity to carry out comprehensive and progressive landscaping to large scale Town Centre, residential and industrial development under the direction with Miss Sylvia Crows, the Corporation's Landscape Consultant.

Appointment (ii) is for Landscape Architects to work in the team developing these proposals. The appointments are superannuable and subject to medical examination.

A house or flat is available.

Applications giving full details should be returned to the General Manager, Basildon Development Corporation Giford House, Basildon Development Corporation Giford House, Basildon Development Corporation Giford House, Basildon Development Corporation TRANSPORT VACANCY FOR ARCHITECTURAL

Development Corporation don, Essex, by not later than Monday, 22nd 3274

GLASGOW CORPORATION TRANSPORT VACANCY FOR ARCHITECTURAL DRAUGHTSMAN

Applications are invited for the appointment of an Architectural Draughtsman. The salary will be in accordance with the Scale Grade E.D. III £7355—2494 have served a recognised architectural apprenticeship, and have appropriate technical education.

Applications should be lodged with the Subscriber not later than 14 days after the date of this advertisement.

E. R. L. FITZPAYNE,

General Manager,
7481

COUNCIL OF THE COUNTY OF ABERDEEN COUNTY ARCHITECT'S DEPARTMENT Applications are invited from qualified Architects (A.R.I.B.A.) and Quantity Surveyors (A.R.I.C.S.) with experience for the following armointments in the above Department ---(A.R.I.C.S.) with experience for the following appointments in the above Department:—

(a) ASSISTANT ARCHITECTS (Grade I)—
Salary scale £1,320×£55 (3) to £1,485.

(b) ASSISTANT ARCHITECTS (Grade II)—

(b) ASSISTANT ARCHITECTS (Grade II)—Salary scale £1,220×£55 (3) to £1,365. (c) ASSISTANT QUANTITY SURVEYOR—Salary scale £1,220×£56 (3) to £1,365. The Department is at present engaged on an extensive and varied programme of architectural work comprising Housing. Schools. Police and other buildings. The appointments are superannuable. Application forms and Conditions of Appointment may be obtained from the undersigned. Closing date for applications 24th May, 1961.

JAMES L. CRAIG County Clerk.

County Buildings, ADMINISTRATIVE COUNTY OF LEICESTER
(a) PRINCIPAL ASSISTANT ARCHITECT,

£1,410-£1,565 (b) CHIEF ASSISTANT ARCHITECTS, £1,310-£1,440-£1,566 (c) SENIOR ASSISTANT ARCHITECTS, £1,140-

ct.1440—ct.566.

(c) SENIOR ASSISTANT ARCHITECTS, £1.140—£1.510.

(d) ARCHITECTURAL ASSISTANT, £815—£1.140
(according to qualifications).
Candidates for (a) must be members of the R.I.B.A.. have had sound experience and be capable of acting as Group Leaders on an extensive programme of education buildings. Candidates for (b) must be members of the R.I.B.A., have had onsiderable office experience and be capable of taking charge of contracts from inception to completion. For (c), should be members of the R.I.B.A., have had office experience and be capable of taking charge of small contracts. For (d), should have Intermediate or Final qualifications of the R.I.B.A. and be capable of executing working drawings. Lodging allowance and removal expenses may be paid to a married man. Apply on form obtainable from County Architect, 123 London Road, Leicester. TC7478

HERTFORDSHIRE COUNTY PLANNING

ARCHITECT required for Design Section. Salary grading A.P.T. IV (£1,140—£1,310 p.a.).
The duties of this post are of an interesting and varied nature including architectural design, estate layouts and landscape work. A.R.I.B.A.
Essential car user allowance. Five-day week. Forms of application from The County Planning Officer. County Hall, Hertford. returnable by 22nd May, 1961.

Officer, County Hall, Hertford, returnable by 22nd May, 1961.

BOROUGH OF HARROW
Applications are invited for appointments on the Architectural Staff of the Borough Engineer's Department which is engaged on a varied programme of municipal building schemes, including minor works to schools and is also responsible for all building maintenance.

minor works to schools and is also responsible for all building maintenance.

(a) DEPUTY CHIEF ASSISTANT ARCHITECT, J.N.C. 'B' (21,417-21,670 p.a.).

Must be fully qualified and experienced in the organisation and direction of such

in the organisation and direction by assisting the property of the property of

Must be suitably qualified and will assist in school maintenance works.

(d) ARCHITECTURAL ASSISTANT, A.P.T.

IV* (£960-£1,310 p.a. plus London "We

Commencing salaries will be in accordance with qualifications and experience, but in the case of appointment (d), applicants will not proceed beyond the maximum of A.P.T. III until fully qualified.

qualified.

The Council may be able to help with housing accommodation in the light of the applicant's circumstances. A contribution towards removal expenses will be considered.

The appointments are subject to the Local Government Superanneation Acts and to the appropriate National Schemes of Conditions of Service.

Forms of application may be obtained from me and must be returned not later than Friday 25th May, 1961.

DAVID PRITCHARD.

DAVID PRITCHARD, Town Clerk Town Cierk's Office. Harrow Weald Lodge,

Harros

HARTOW. S7477
GLENROTHES DEVELOPMENT
ARCHITECT (A.R.I.B.A.) required for a variety of work including HOUSING, INDUSTRIAL, SHOPPING and COMMERCIAL Build

TRIAL SHOFFIAG and control of the vacancy offers an excellent opportunity to an Architect with imagination and enthusiasm. SALARY—up to £1,480 per annum according to experience.

HOUSE to rent available.
Applications to Secretary and Legal Adviser, Glenrothes Development Corporation, Glenrothes, Fife. by 26th May, 1961.

BOROUGH OF CHESTERFIELD
Applications are invited for the following appointments in the Borough Engineer's Department (C. Bond, F.R.I.B.A., Chief Architect). The commencing salaries will depend on qualifications and experience.

The commencing salaries will depend on qualifications and experience:—

(a) SENIOPARCHITECT

(b) ASSISTANT ARCHITECT

APT. Grade IV (£1,140—£1,510).

(c) ARCHITECTI ALL DRAUGHTSMAN

Misc. Grade VI (£760—£252).

(d) ASSISTANT QUANTITY SURVEYOR

Misc. Grade IV (£625—£685).

A car allowance is payable for posts (a) and (b) and housing accommodation will be provided if required for posts (a), (b) and (c). A five-day week is in operation.

A substantial programme of capital works is envisaged for completion during the next few years.

years.

Chesterfield, which has a population of about 70,000, is situated bordering the Peak District National Park.

Applications stating age, qualifications, training and experience, appointments held with dates and salaries, and naming two referees to Borough Engineer, Town Hall, Chesterfield, not later than Monday, 29th May, 1961.

RICHARD CLEGG, Town Clerk, 7482

Applications are invited for the following posts
the Architect's Section of the Borough Engiser's, Department:

n the Architect's Section of the Borough Engineer's Department:

(a) THERE SENIOR ASSISTANT ARCHITECTS A.P.T. IV to V.E.1.40—21.480.

(b) TWO ASSISTANT ARCHITECTS A.P.T. II to 111 £815—21.140.

In the case of (a) applicants must be Associates of the R.I.B.A. and the conditions of this appointent include the payment of a car allowance of £115 per annum.

Housing accommodation will be offered to all successful applicants and a contribution towards removal expenses will be made. Commencing salary will depend on qualifications and previous experience.

salary will depend on qualineations and previous experience.

The present programme of capital work includes new primary and secondary schools, new municipal offices, multi-storey flats, shops and houses. The office is run en a group system and opportunity is given to all assistants to have experience on varying works undertaken.

Further particulars and application forms may be obtained from the under-signed to whom completed forms should be returned not later than moon on Wednesday 24th May, 1961.

P. W. DAWKES, Borough Engineer and Surveyor.

Newnham House, Horne Lane, Bedford.

Vacancies exist in my Department for suitably qualified Architects on the following scales:—
(a) ASSISTANT ARCHITECTS
Scale 6850—61,150.
(b) ARCHITECTURAL ASSISTANTS
Scale 6730—6285

Scale 2730-2855.
Applicants for (a) must be A.R.I.B.A. and for (b) have reached the Intermediate Stage.
The appointments will be superannuable, and full details of age, experience and qualifications should reach me not later than Saturday, 20th May, 1961.

J. A. McGREGOR, Burgh Engineer

14. Gilmour Street. PAISLEY. 28th April, 1961.

FOR THE SCOTTISH DEPARTMENTS
OF THE SECRETARY OF STATE
ARCHITECTS are required in Edinburgh for the Chief Architect's Division of the Secretary of State's Departments which carries overall responsibility for work on Hospitals. Housing, Schools, Colleges and other Institutions, and which offers important opportunities for development work and research. Salary range £936—£1,430. Starting pay according to age and experience. 5-day week. 4 weeks annual leave. Prospects of promotion and permanency Write for application form to T. A. Jeffryes, Esu., A.R.I.B.A., A.M.T.P.I., Chief Architect, Department of Health for Scotland (Room 30), St. Andrew's House, Edinburgh, 1.

ASSISTANT REGIONAL ARCHITECT
Salary £1,775 to £2,075 per annum.
The design of hospitals is a complex problem involving research, clear thinking and logical planning.
An Assistant Regional Architect is required in Oxford to be responsible to the Regional Architect for the overall planning of major hospital sites in part of the Region; and to act as liaison architect to private architects employed on major development or smaller projects, keeping abreast of the latest trends in hospital planning and ensuring that terms of reference are complied with.

ensuring that terms with.

Previous hospital experience is not necessary.

Further particulars may be obtained from W. J.

Jobson. E.R.D., F.R.B.A., Regional Architect.

Applications to be received not later than

25th Way. 1951, by the Secretary, OXFORD

REGIONAL HOSPITAL BOARD, 45, BANBURY

ROAD, OXFORD.

COUNTY BOROUGH OF SOUTH SHIELDS
BOROUGH ENGINEER'S DEPARTMENT
Applications are invited for the appointment of
SENIOR PRINCIPPL ASSISTANT QUANTITY
SURVEYOR in accordance with J.N.C. Scale A
up to £1,565 according to experience.
Applicants must have passed the Final Examination (Quantity Surveying Section) of the
Royal Institution of Chartered Surveyors.
Housing accommodation will be made available to successful applicants if necessary and
they will be required to pass a medical examination for Superannuation purposes.
Application forms are obtainable from the
Borough Engineer, Town Hall, South Shields,
and should be returned to him not later than
10 a.m., 5th June, 1961.

R. S. YOUNG.

R. S. YOUNG, Town Clerk. 87485

CITY OF SALFORD

APPOINTMENT OF

(a) PRINCIPAL ASSISTANT ARCHITECTS,
J.N.C. Scale "A" (£1,410 to £1,565 p.a.).

(b) ASSISTANT ARCHITECT, Grade A.P.T.

IV.N (£1,440 to £1,430 p.a.).

(c) JUNIOR ASSISTANT ARCHITECT, Grade A.P.T. I'III (£945 to £1,140 p.a.)

The commencing salaries will be dependent upon qualifications are invited from enthusiastic Architects who possess good modern design ability and a sound knowledge of up-to-date construction.

The successful applicants will work under the direction of the Chief Architect, and will be engaged upon a challenging central area redevelopment programme, which will include housing, high flats and shops, together with schemes for overspill housing, schools, and general works. Housing accommodation may be provided in approved cases. A five-day week is in operation. Applications, indicating post applied for, and stating age, education, qualifications, and experience, together with the names and addresses of two referees, should be sent to the City Engineer & Survevor, Town Hall, Salford 3, Lanes., to arrive by Wednesday, 24th May, 1961. 7491

MIDLOTHIAN COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT EDINBURGH

QUALIFIED ARCHITECTS . Salary Scale £1,135—£1,345—£1,595

QUALIFIED QUANTITY SURVEYOR Salary Scale £1,135-£1,345

Placing according to experience and ability. Applications, specifying post desired, giving full details of experience together with names of two referees, should be submitted to the County Clerk, County Buildings, George IV Bridge, Edinburgh, 1, by Monday, 22nd May, 1961.

LANCASHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT ASSISTANT ARCHITECTS, A.P.T. V (21,310-£1,480). (Starting salary according

Applications are invited from qualified Archi-constructural methods, to work on a large and varied programme.

If appointed

varied programme.

If appointed, applicants will be able to claim a disturbance allowance up to a maximum of £125, a facility offered by the County Council to cover the expenses of removal and other associated costs.

Application forms and details of appointment obtainable from the County Architect, P.O. Box 26, County Hall, Preston, returnable by 26th May, 1961.

LANCASHIRE COUNTY COUNCIL COUNTY ARCHITECTS DEPARTMENT ASSISTANT ARCHITECTS, A.P.T. IV (£1,140-£1,310). (Starting salary according t

experience.)
Applications are invited from qualified Architects of initiative, keen on design and modern constructural methods, to work on a large and

constructural meanous, to work on a large and varied programme.

If appointed, applicants will be able to claim a disturbance allowance up to a maximum of £125, a facility offered by the County Council to cover the expenses of removal and other associated

costs.

Application forms and details of appointment obtainable from the County Architect. P.O. Box 25, County Hall, Preston, returnable by 26th May, 1961.

7368

May, 1961.

ANCASHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
SENIOR ASSISTANT ARCHITECTS (N.J.C.
Scale "B." (21.505—21.670).

Applications are invited from experienced
Architects for posts on the permanent staff. The
County Council has a large and extremely varied
building programme, and posts will be filled by
men of initiative, imagination and a flair for
sensitive design.

Applicants are expected to be Registered
Architects, as well as Associates of the Royal
Institute of British Architects and, if appointed,
will be able to claim a disturbance allowance up
to a maximum of £125, a facility offered by the
County Council to cover the expenses of removal
and other associated costs.

Application forms and conditions of appointment
are obtainable from the County Architect, P.O.
Box 26, County Hall, Preston, returnable by the
26th May, 1961

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE
OFFICE OF THE COUNTY ARCHITECT Applications are invited for the following appointments. The commencing salary will be fixed at a point within the scale commensurate with qualifications and experience. Five-day week operated.

CENTRAL OFFICE, BISHOFGARTH, WAREFIELD,
SENIOR ASSISTANT QUANTITY SURVEYOR, J.N.C. Scale "B." Salary range
£1,495-£1,670.
Applicants should be Associate Members of the
Royal Institution of Chartered Surveyors and
have had experience in the preparation of Bills
of Quantities, measuring for and adjustment of
final accounts and should be capable of taking
charge of a section.

ASSISTANT QUANTITY SURVEYOR, A.P.T.

IV. Salary range £1,140-£1,310.
Applicants should have had experience in the preparation of Bills of Quantity, measuring for and adjustment of final accounts. Preference will be given to Associate Members of the Royal Institution of Chartered Surveyors.

ASSISTANT ARCHITECTS and ARCHITECTURAL ASSISTANTS.

A.P.T. V. Salary range £1,310—£1,480.

A.P.T. IV. Salary range £41,510—£1,310.

A.P.T. II. Salary range £815—£960.

Applicants for Grades A.P.T. V and A.P.T. IV should be Associate Members of the Royal Institute of British Architects, with a good standard of design ability, and a sound knowledge of modern methods of construction, and be capable of haadling building projects from sketch plans to completion.

Doncaster Divisional Office (Adwick-le-Street).

ARCHITECTURAL ASSISTANT, A.P.T. III.

Salary range £960-£1,140.

Applicants should possess a sound knowledge of building construction and be capable of dealing with maintenance works and adaptations to buildings of various types.

Applications to be submitted by the first post on Tuesday, 30th May, 1961, on forms to be obtained from and returned to the undersigned.

A. W. GLOVER, F.R.I.B.A.,

County Architect.

Wakefield. 7403

Wakefield. 7403

METROPOLITAN BOROUGH OF

CAMBERWELL

ARCHITECTS the Borough
Architect's Department within a salary range of
£855 and £1,525 (Grades A.P.T. II to V of the
National Scales). Grade and commencing salary
according to qualifications and experience. The
work of the department includes design and
construction of public buildings, housing estates,
including multi-storey construction. Application
form from Town Clerk, Town Hall, S.E.5. Closing
date 24th May, 1951.

TOWN PLANNING OFFICER

PUBLIC WORKS DEPARTMENT GOVERNMENT OF BAHAMAS

Duties: To be the Executive Officer of the Town Planning Committee and to per-form duties and functions as directed.

Qualifications: Candidates must be under 45 years of age, and A.M.T.P.I.

Terms of appointment: On contract for one tour of 36 months. Salary £2,300 plus 2½ per cent. temporary allowance. Free passages. Rented accommodation. No direct taxation at present, Write to Director of Recruitment, Colonial Office, London, S.W.I. quoting BCD112/27/04/E2 and giving full names, age, qualifications and experience.

EAST SUSSEX COUNTY COUNCIL COUNTY PLANNING DEPARTMENT PLANNING ASSISTANT required in Area Planning Office at Crowborough. Scale A.P.T. III (2960 to £1,140 per annum). Particulars and application forms obtainable from County Planning Officer, County Hall, Lewes, Sussex, to be returned by the 17th May, 1961.

COUNTY EOROUGH OF WEST HAM
A vacancy exists for a GROUP ARCHITECT
in the Borough Architect and Planning Officer's
Department. J.N.C. Scale "B"-[1.485/21.670
D.a., plus Essential Car Allowance.
There are also a number of vacancies for
SENIOR ASSISTANT ARCHITECTS, J.N.C.
Scale "A"-[1.400/21.565 p.a., and for ARCHITECTURAL ASSISTANTS. A.P.T. Grade IV/VE1.400/E1.430 p.a., plus London allowance.
An expanded programme of work, including
numerous official buildings. Fire Stations,
Primary and Secondary Schools, high density
housing, and Town Centre Redevelopment
Scheme, is on hand.
Applications, with details of qualifications and
experience (together with names of two
referees), to be addressed to the Borough Architect and Planning Officer. 70, West Ham Lane,
Stratford, E.15, by 30th May, 1961.

CITY OF LANCASTER

APPOINTMENT OF CITY ARCHITECT
Applications are invited for the above appointment. Salary Scale 22,170 × 4 increments of £75-£2,470. This is the maximum salary scale within the Joint Negotiating Committee's Scales. Applicants must be Corporate members of the Royal Institute of British Architects and preferably also of the Town Planning Institute. This is a first appointment of a Chief Officer for the Architectural Department, and the Council are seeking a person of wide experience of architectural design. Experience of central area re-development will be of great value. Further particulars and conditions of appointment are obtainable from the undersigned. Last date for receipt of applications, 24th May, 1961.

J. D. WADDELL, Town Clerk.

Town Hall

Town Hall,
Lancaster.

3rd May, 1961.

BUCKS COUNTY COUNCIL
Applications are invited for the following appointments in the County Architect's Department.

appointments in the County Architect's Department:

Ment:

ASISTANT ARCHITECT, A.P.T. Grade V.

£1,310-£1,480 p.a.

ASSISTANT ARCHITECT, A.P.T. Grade IV.

£1,410-£1,310 p.a.

FEMALE MACHINE OPERATOR. General
Division, £220-£530 p.a.

These appointments are superannuable and
subject to medical examination.

A weekly allowance of 25s. and return fare
home once every two months may be paid for
six months to newly appointed married officers of
the Council unable to find accommodation.

Applications, on forms provided, must be
returned by Monday. 29th May, 1561.

F. B. POOLEY.

County Offices.

County Offices, Aylesbury, Bucks,

Aylesbury,
Bucks,
CITY OF WAKEFIELD
CITY ENGINEER'S DEPARTMENT
Applications are invited for the following
superannuable appointments;
(a) ASSISTANT ARCHITECT, Grade A.P.T.
III (£960-£1,140 p.a.).
Applicants must be A.B.I.B.A. and preference
will be given to those having municipal experience. The commencing salary will be according
to qualifications and experience.
(b) ASSISTANT QUANTITY SURVEYOR,
Grade A.P.T. III (£960-£1,140 p.a.).
Candidates must be members by examination
of the R.I.C.S. or I.Q.S. and preference will be
given to those having experience in Local
Authority, Housing, Schools and other Municipal
projects. The commencing salary will be according to qualifications and experience.
Housing accommodation will be provided if
necessary.

Housing accommodate the constraint of the constant of the case of

Hall, Wakefield, by the 31st May, 1961. 7394

COUNTY BOROUGH OF WEST HAM
Applications invited for position of CHIEF
ASSISTANT PLANNING OFFICER, J.N.C.
Scale "C"—21,560/£1,325 p.a., plus Essential Car
Allowance. Applicants should hold a recognised
qualification in Town Planning and preferably
an associated professional qualification and
should be experienced in all aspects of urban
planning, including statutory requirements of a
Local Planning Authority. A vast quantity of
redevelopment work is in hand leading to urban
renewal schemes and town centre redevelopment
proposals.
An ASSISTANT PLANNING OFFICER, A.P.T.
LV—21,140/£1,310 p.a., plus London Allowance, are also
required, and suitably qualified applicants are
invited to apply.
Applications, stating age, qualifications and
experience (together with names of two referees),
to be addressed to the Borough Architect and
Planning Officer, 70, West Ham Lane, Stratford,
E.15, by 30th May, 1961.

Architectural Appointments Vacant

per line; minimum 12s. Box Number, including forwarding replies, 3s. extra.

including forwarding replies, 18. extra.

RONALD WARD AND PARTNERS invite
applications from ARCHITECTS. Senior
and Junior. Long-term prospects. Scope for
initiative and responsibility in interesting commercial. industrial and civic projects in British
Isles. West Africa and Australia. Salaries commensurate with ability. Non-contributory Pension
and Life Insurance schemes. Five-day week.
Pleasant offices. Apply 29. Chesham Place, Relgrave Square, London, S.W.I. Tel.: BELgravia.
3361.

DOOTH, LEDEBOER AND PINCKHEARD require ASSISTANTS in the salary range 2750-21,250. Apply 17-20. Mason's Yard. Duke Street, St. James's, S.W.I. Tel.: TEAfalkar TG3119

EXPERIENCED ASSISTANTS required for responsible positions in West End office. Salaries £1,000—£1,500. Apply Box TC6371.

A RCHITECTURAL ASSISTANT required for North Devon Office. Box TC6673.

SENIOR AND JUNIOR ASSISTANTS. Only those who prefer a small office and an interesting variety of work on both old and new buildings should apply to: L. H. Bond & R. W. Read, 44. Castlegate, Grantham. TC6404

C. H. BLSOM & PABTNERS require two sensor projects. Pension scheme and lunchoon vouchers. In Lower Grosvenor Place, S.W.L. VICtoria 4304.

LEICESTER. SENIOR ARCHITECTS AND ASSISTANTS required for general practice. Appropriate salary paid. Apply by telephone or in writing for an interview to Herbert, Son & Sawday, 18, Friar Lane, Leicester. Tel. 56476.

S.W.1. Belgravia 3361. TC6106

LIE MAYOROAS requires ABCHITECTURAL
ASSISTANTS with a minimum of three
years' office experience in this country. Write,
giving brief particulars of architectural education and experience, and salary required, to:
13, David Mews. Baker Street, W.1. TC7014

ARCHITECTURAL ASSISTANTS of all grades
required in a husy provincial practice.
Good salaries to right applicants. Penalon
Scheme. Accommodation. Apply with full
details to:

Good Saiaries
Scheme, Accommodation. Apply
details to:
Ruddle & Wilkinson, F.L./A.B.I.B.A.,
Long Causeway Chambers,
Peterborough.

T
PARTNERS re

DWARD D. MILLS & PARTNERS require additional qualified STAFF for a variety of new work including housing, schools, industrial and churches, Enthusiasm and initiative important. Five-day week, Write giving full details to 9/11, Richmond Buildings, Dean Street, London, W.1.

OSCAR GARRY AND PARTNERS require
THREE or FOUR ASSISTANTS with at
least two years' office experience, to work in a
team on large interesting projects. Salaries from
290 depending upon ability and experience.
Apply 66, Gloucester Place, W.1, or 'phone
WELbeck 2507.

A RCHITECTURAL ASSISTANTS OF ALL GRADES required to work in design/construction groups on comprehensive Town Centre planning, also flats, factories, interior designs, and shops and offices. Salaries up to £1,500 p.a. accordance with service, minimum two weeks. Luncheon vouchers. Five-day week, overtime paid extra

Luncheon vouchers.
paid extra.

J. Seymour Harris & Partners.
34, Greenfield Crescent.
Edgbaston, Birmingham, 15.

KINGSTON-UPON-THAMES.—SENIOR and JUNIOR ASSISTANTS required, male or female, for interesting and varied work. Salary range up to £1,150 per annum offered to suitable applicants. Pleasant and congenial office conditions. Five-day week. Applications in writing, with essential particulars, will be treated in confidence. Donaldson & Co., Architects, 75, London Road, Kingston-upon-Thames.

TC6953

COMPLETE CONTROL 24 million contract in Home Counties. Hyde Park Corner office. Qualified and experienced architect. Up to 21.400 salary. Appointments BEL 6696. TC6951

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PEARD, BENNETT, WILKINS AND PARTNERS need one or two more above average
ASSISTANTS at above average salaries. We are
looking for those recently qualified or of Final
standard who will join in work on major projects and take responsibility at an early date.
Write to 101 Baker Street, W.1, or phone HUN
1711, ref. KAM, for an appointment to see our
office and work and to discuss joining us. We
have Associateship and Pension Schemes besides
other benefits and will give advancement, both
financial and professional, to the right people.

S7104

A TOMIC contracting combine requires urgently two ton-grade industrious and intelligent ARCHITECTURAL ASSISTANTS for short-term all-out effort on working drawings. Work in London office is of most challenging and complex nature. Those interested please write stating age. experience, and salary required to: N.C.C., 52 Carnaby St., London, W.I. quoting ref. RY.

GRORGE, TREW & DUNN

Interesting projects include new hospitals, university buildings and multi-storey date.

Qualified ARCHITECTS are invited to apply to b. Eastbourne Terrace, W.2. Tel. PAD 6611. TC6403

A RCHITECTURAL ASSISTANTS required at Poole or Bolton offices, salaries 2650-21,050 according to experience. W. Leslie Jones & Partners, 59 High Street, Great Missonden, Bucks.

ASSISTANT ARCHITECTS AND
ARCHITECTURAL ASSISTANTS
THE Architectural Department of John T.
Bell & Sons Ltd., requires Qualified Assistant Architects, salary range £1,250 and upwards; also Architectural Assistants of Intermediate standard, salary range £300-£1,100 and up to Intermediate standard, salary range £450-£200, commencing salary according to experience, with annual increments dependent on proficiency. Good prospects of promotion in a rapidly expanding department dealing with a wide and varied programme of development.

Write for forms of application to:—
Robt. W. Graydon, A.R.I.B.A., Staff Architect,
John T. Bell & Sons Ltd.,
Market Chambers,
Market Street,
Newcastle upon Tyne 1. S7175

CALARIES from 21,000 upwards are offered by Trust Houses Ltd. to suitable ARCHITECTURAL ASSISTANTS with good experience. Interesting and varied work on new and existing hotels. Pension and Life Assurance Schemes, five-day week, free lunches. Write full particulars of age, experience and salary required to Nelson Foley, Chief Architect, Trust Houses Ltd.. 53, Short's Gardens, W.C.2. 87196

A RCHITECTURAL ASSISTANTS. Well-known contractors in West End require Architectural Assistants. Intermediate or Finals standard. Permanent position, superannuation and bonus. Good prospects. Write in confidence stating age, experience and salary required to Box 87094.

EXPERIENCED ASSISTANTS and JUNIORS required by City Architects to work on development schemes including office blocks and multi-storeyed buildings. Salary up to £1,250, according to experience and ability. Five-day week; luncheon vouchers. Box 87193.

2950-21,500. ARCHITECTURAL ASSISTANTS with imagination and designing ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Norman, Preston & Partners, 83, Kingsway, W.C.2. HOLborn 4071.

YORKE, ROSENBERG AND MARDALL have some vacancies for experienced STAFF, starting salary according to qualifications and experience, in the range £950-£1,200. Ring AMBassador 4521 for appointment. TC6200

SENIOR ASSISTANTS required. Please apply to F. G. Frizzell, A.R.I.B.A., 90, Portland Place, W.1. LANgham 1732. TC4943

A RCHITECTURAL A BCHITECTURAL ASSISTANTS of all grades, particularly Intermediate standard, required on varied and interesting projects. High salaries will be paid in accordance with skill or experience of applicant. Lewis Solomon, Kaye & Partners. City 8811.

PLAYNE & LACEY require experienced and enthisiastic SENIOR ARCHITECTURAL ASSISTANT for work on University project. Salary range £1,200 to £1,500. Write 19, Queen Anne's Gate. Westminster, S.W.1, or ring WHI 2552 for interview.

OPPORTUNITY for Intermediate or newly-qualified ASSISTANT with initiative and all-round ability, to join youthful expanding prac-tice in Croydon. Apply to Donald Rowswell & Partners, 11/11a, George Street, Croydon, or tele-phone CBOydon 4086,

ENIOR ASSISTANTS required for work on large Hospital programme, excellent opportunities for the right men, salary £1,000-£1,400. Luncheon Vouchers and five-day week. Write giving full particulars to W. H. Watkins, Gray and Partners, 57, Catherine Place, S.W.I. TC5633

ARCHITECTURAL ASSISTANTS required for interesting work, including echools and hospitals, in Croydon office. Commencing salaries offered: £990-£1,150 for Associates, £500-£550 for students, according to age and experience. Five-day week and annual bonus. Write to George Lowe & Partner, 79, George Street, Croydon.

A RCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied practice. Good saiary and prospects for suitable applicants. Five-day week. Write giving particulars of age, qualifications, experience, etc., to Box 918, c/o 7, Coptic Street, W.C.1. TC5647

A BCHITECTS' ASSISTANTS required, both Intermediate R.I.B.A. and Finals standard, with experience in this country. Good salary offered. Bernard Gold & Partners. 4/6, Savile Bow. W.1. Regent 7551.

W.L. Regent 7551.

NYERMEDIATE to Final ASSISTANTS required immediately.

Salary according to adjust and experience.

Portiand Place, London, W.L. LAN. 235. TC9739 ability and experience. Theo. H. Birks. 38, Portland Place, London, W.I. LAN. 7255. TC9739

ARCHITECTS' ASSISTANTS required, Final and Intermediate standard, to work on large and interesting projects. Salary 2890 to 21,000. Applicants must be good draughtsmen, with sound knowledge of detailing. Please write giving full particulars of experience, age, etc. to: F w. Beech & E. Curnow Cooke, F.L.R.I.B.A., 15, Dix's Field, Exeter. TC0945. That of Intermediate to Final standard with a minimum of five years' experience. Work will be interesting, varied and responsible. Salary according to age and experience. Luncheon vouchers provided. Apply to 7, Cromwell Road, London, S.W.T. KENSINGTON 3534/3549. TC6491

PLAYNE & LACEY require experienced and enthusiastic ARCHITECTURAL ASSISTANTS. Salary range 4900—21,650. Write 19, Queen Anne's Gate, Westminster, S.W.I. or ring WHI 2552 for interview. TC6560

ARCHITECTURAL ASSISTANT at Intermediate Standard required for West End Branch of Provincial Architects. Interesting and varied work. Five-day week, Luncheon Vouchers. Write full particulars of age, experience and salary required to Box TC6925.

QUALIFIED ARCHITECTURAL ASSISTANT required immediately in Home Counties office. Considerable scope for work on industrial.commercial and housing schemes. Five-day week. Write full particulars of age, experience and salary required to Box TC6925.

ARCHITECTURAL ASSISTANT required. R.I.B.A. Intermediate standard, with some office experience. Varied and interesting work. Five-day week. Lyncheon vorchers. Write full particulars of age, experience and salary required to Box TC6925.

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WELL-KNOWN firm of City Architects with wide practice covering the whole country and Branch Offices in three of the Provinces, require JUNIOR ASSISTANTS. Fire-day week. Good salaries. Luncheon vouchers. Box S635.

Good salaries. Luncheon vouchers. Box Sea35.

EXPERIENCED ASSISTANT required in old established office. General practice. Apply stating experience, salary etc. Apply: Manning & Steel, F.E.I.B.A., Architects & Surveyors. Seorge Street West, Luton. Beds. S6876

ENIOR ARCHITECTURAL ASSISTANTS.
Lurge Office has a limited number of vacancies for Senior Architectural Assistants, salary range £900—£1,500, to undertake work of a varied and interesting character.

Reply with particulars of experience to Box TC6875.

Reply with particulars of experience to Box TC6875.

A SSISTANTS of various grades required in Architects Office. Salary according to experience. Write Nicholas & Dixon-Spain & Partners, 19, Hanover Square, W.1.

TC6909

R OBERT MATTHEW & JOHNSON-MARSHALL have vacancies in their London office for ARCHITECTS at all levels of experience for a variety of interesting jobs. Apply to Roboert Matthew & Johnson-Marshall. 24, Park Square East, N.W.1.

TC6547

21.000 / £2,000 p.a. will be paid to experience competent ARCHITECTS by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to Box TC9360.

DASIL SPENCE & PARTNERS require quali-

BASIL SPENCE & PARTNERS require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 1. Fitzroy Square. W.1. stating experience and salary required. TC9824

SIR JOHN BURNET, TAIT & PARTNERS have vacancies for ARCHITECTURAL ASSISTANTS of all grades. Salaries from £1,200 p.a. Luncheon vouchers, superannuation and medical acheanes, non-contributory. Apply 10 Bedford Square, W.C.1.

Square, W.1.

ROGER MALCOLM DEVELOPMENTS
LIMITED
require immediately
CHIEF ARCHITECT to take charge of drawing on a large and varied programme of housing and flat projects. Salary between £1,500 and £2,000 per annum according to experience and qualification.

ARCHITECTURAL ASSISTANT. Applicants should possess sound knowledge of construction and capable of preparing working and detailed drawings, particularly on housing and flat devisionment schemes. Salary between £1,000 and £1,500 per annum.

should possess sound knowledge of construction and capable of preparing working and detailed drawings, particularly on housing and detailed drawings, particularly on housing and flat devision of the property of the propert

SENIOB ASSISTANTS required immediately.
Salary by arrangement. Theo. H. Birks, 38,
Portland Place, London, W.1. LAN 7236. TC1486

BRYAN & NORMAN WESTWOOD & PARTNERS require ASSISTANT ARCHITECTS. Salaries up to £1.200. Apply to 21. Suffolk Street. S.W.I. TRAfalgar 1106. TC6736 have vacancies for two ARCHITECTURAL ASSISTANTS, for interesting works in various parts of the country. Opportunities for advancement in accordance with ability. Please state salary required and general experience. Broadway, Maidenhead.

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W ROAD E.3 NORTH WALES 83 ENAMEL 80W M HALL BOW ABERILEFENI 40 SLATE TOWN BOW UARRIES

EXPERIENCED ASSISTANTS required, Inter-mediate and Final standard, in small office, busy general practice; use own initiative and run own jobs. Holiday arrangements respected. Lush & Lester, Craven House, 121 Kingsway, W.C.2. HOLborn 5101.

W.C.2. HOLDOT 5101.

EXPERIENCED SENIOR ASSISTANT (about B.I.B.A. Finals standard) required in small general practice. Interesting variety of work including restoration of buildings of architectural interest. Salary by arrangement. Phone Bevil Greenfield, A.B.I.B.A., Dorking 4208.

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WITH . . . originality and initiative

TO . . . design and develop building systems

IN . . . friendly, congenial surroundings

SALARY RANGE £1,100-£1,400 p.a.

PLUS...bonus, superannuation, five-day week. Apply in writing, giving details of experience and salary required, to:—Sates Director, Middle-sex Prefabricated Buildings Ltd., Green Lane, Hounslow, Middlesex.

M ORRIS DE METZ, F.R.I.B.A., now requires several ASSISTANTS of Intermediate standard with some office experience. Interesting work on offices, luxury flats, hospitals, multi-storey garages, etc. High salaries and pension scheme. Please telephone HUNter 2581 or write to 29 Gioucester Place, Portman Square, London, W.I.

TC7166

BIRMINGHAM. Experienced ASSISTANTS required. Good salary and bonuses. Three weeks holiday. Varied and interesting projects. Apply by phone or letter to: D. R. Harper, Esq., A.F.C., D.F.C., A.R.I.B.A., Messrs Francis W. B. Yorke, Harper & Harvey, 191 Corporation Street. Birmingham 4. Tel. CENtral 6901-2-3. 87115

WRGENTLY required, one or two SENIOR ASSISTANTS of Final standard, with about five years' experience. Capable of preparing sketch plans, and supervision of contracts. Write stating age, experience, and salary required to Box TC7062, or telephone MAYISI 9556.

DARTFORD. Two capable ASSISTANTS required for selected contracts. Full interest during all stages of design and construction. Good salary range for all applicants. Please write to: Bernard F. Moss & Partners, 10 Highfold Road, Dartford, Kent, or telephone Dartford 2028.

CAPABLE qualified ASSISTANT required to take charge of branch office of expanding practice in North West Surrey, with prospects of partnership. Pleasant office with a widely varied practice. Write with full particulars and salary to Broadway & Malyan, 54 Baker Street, Wey-bridge, Surrey.

to Broadway & Malyan, Se Daari Strills bridge, Surrey.

BERNARD F. MOSS & PARTNERS require two capable ARCHITECTURAL ASSISTANTS. Offices in Cannon Street and Dartford. The appointments advertised are preferably required for the Dartford office but a selected applicant could work from the London office if particularly wishing to do so. Salary by arrangement and at present day range for Senior and Junior staff. Please write to No. 10 Highfield Road, Dartford, Kent, or telephone Dartford 23028.

K ATZ & VAUGHAN have vacancies for Senior and Intermediate ASSISTANTS. REG 5401. 208a, Regent Street, W.I. 87143

ARCHITECTURAL and Town Planning
Practice requires SENIOR ARCHITECT
to take charge of a new group to work on
central redevelopment. Five-day week, privite
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arrangement. J. Seymour Harris & Partners.
Grænfield Crescent, Edgbaston, Birmingham, 15.
87270

W. S. HATTRELL & PARTNERS

urgently require

SENIOR ASSISTANTS in

COVENTRY, LONDON and MANCHESTER

to take part in a varied programme of work including Schools, Office Blocks, T.V. Studios. Central Redevelopment Schemes and Industrial Developments. Salary within the range £1,000-£1,500.

Write or telephone 1, Queens Road, Coventry (Coventry 26446): 21, Cleveland Place, King Street, S.W.1 (Whitehall 4076); 15, Piccadilly, Manchester, 1 (Deansgate 5705).

SENIOR AND JUNIOR ASSISTANTS urgently required for busy City Office. Excellent modern facilities and long-term engagements. Holidays with pay this year, Salary increments and bonus. Luncheon Vouchers. Qualifications unnecessary but experience and ability imperative. Salaries varying from £1,000 to £1,650 according to ability. Box 7390.

CHIPPINDALE & EDMONDSON require two acwly qualified ASSISTANTS with enthusiasm for modern architecture in their Darlington omce. Please apply in writing to Cnippindale & Edmondson, 37s, Tubwell Row, Darlington.

SCHERRER AND HICKS require ASSISTANTS in

LONDON AND MANCHESTER

All grades
Interesting and varied work
19, Cavendish Square, W.1. Museum 1105
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87288

COTCH AND PARTNERS, Architects, have vacancies for ARCHITECTURAL ASSISTANTS with a few years' office experience. Fiveday week; a good salary, with luncheon vouchers. Apply in writing to 8, City Road, London, E.C.I. stating age, experience, qualifications, if any, and salary required.

ARCHITECTS

(£800-£1,500)

There are vacancies in the Co-operative Whole-sale Society's expanding Branch Architect's Office in BIRMINGHAM

ASSISTANT ARCHITECTS

within the range £800-£1,200 with annual increments of £50. Commencing salary dependent on ability and experience.

Vacancies also exist for more experienced STAFF with a commencing salary up to £1,500 with prospects of promotion to a higher grade.

Five-day week. Three weeks holiday. Pension Scheme.

Apply in writing, with details of age, qualifications and experience, to:-

S. Hay, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1. Balloon Street, Manchester 4.

£800 - £1,500

Co-operative Wholesale Society Ltd. Architect's Department, Manchester have vacancies for

ASSISTANT ARCHITECTS

within the range £800-£1,200 with annual increments of £50. Commencing salary dependent on ability and experience.

Vacancies also exist for more experienced STAFF with a commencing salary up to £1,500 with prospects of promotion to a higher grade.

Five-day week. Three weeks holiday. Pension Scheme.

Apply in writing, with details of age, qualifications and experience, to:-

G. S. Hay, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd...

L. Ralloon Street, L. Ralloon Street, Manchester 4. 87317

CO-PARTNERSHIP offered to young qualified of ARCHITECTs with some experience and desire to get on. Busy north east practice with a wide variety of work including Urban Planning in addition to architecture. No capital necessary but opportunities may arise later for full partnership. Box TC7341.

TOOLEY AND FOSTER require a SENIOR ARCHITECT. Associate R.I.B.A. and preferably with some office experience, to take charge of work through all stages. Varied practice including schools, multi-storey housing, hospitals, offices, industrial and churches. Salary around £1,150 basic according to experience. Five-day week, free life insurance and good working conditions. With advantages of being within easy reach of but not in London. Apply in writing to Midland Bank Chambers, Buckburst Hill, Essex.

TOOLEY AND FOSTER require ARCHITECTO-

TOOLEY AND FOSTER require ARCHITECTEMBY qualified. Varied practice including schools, multi-storey housing, hospitals, offices, industrial and churches. Salary 2505-21.000 according to experience. Five-day week, free life insurance and good working conditions, with advantages of being within easy reach of but not in London. Apply in writing to Midland Bank Chambers, Buckhurst Hill, Essex. S7243

PROGRESSIVE Building and Civil Engineering Company engaged in the Design and Build field, with a varied programme of work, require capable ARCHITECTURAL ASSISTANTS, Good salary and conditions of employment including contributory superannuation scheme. Full details of age, experience and present salary to The Secretary, Fell Construction Co. Ltd., 20/30, Lawefield Lane, Wakefield. 87244

SYDNEY GREENWOOD, A.R.I.B.A. CHIEF ABCRITECT

JOHN LAING AND SON LIMITED

requires

ARCHITECTS, ARCHITECTURAL ASSISTANTS and DRAUGHTSMEN

THE office has been established for over 15 years, has broad experience, and offers tremendous opportunities.

There is full scope for close collaboration with all other branches of the industry; these include Civil Engineering. Plant Engineering. Cost Analysis, Project Planning and Construction. The Research and Development Centre provides a unique background to design work, and staff are appointed to the Centre as the occasion arises.

are appointed to the Centre as the occasion arises.

The fullest attention is given to new techniques and materials and there is a continuous line of development within the organization in all fields. Work is hand includes the following:—
Redevelopment of Central Areas, Industrial, Commercial, Multi-storey Dwellings, Schools, and Proprietary systems.

Staff are required in all grades, Full advantage will be taken of skill in vigorous design and presentation, effective detailing and Draughtismanship, and Technical knowledge and administration. Applicants who have a positive attitude to the need for close collaboration between the branches of the industry, will be especially valued.

These posts offer excellent prospects and progressive benefits, including a pension scheme. Applications, giving brief details, to Group Personnel (MHA-4) Manager, John Laing and Son Limited, London, N.W.7.

RIGHTON & HOVE: Senior and Intermediate standard Associated. Coast. Salaries up to 21,200 per annum. Five-day week. Three weeks annual holiday. Super-annuation and Free Life Insurance. II. Hubbard Ford & Associates, 67, Church Road, Hove, 5, Sussex.

**RICHITECTURAL ASSISTANT required for

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S7247

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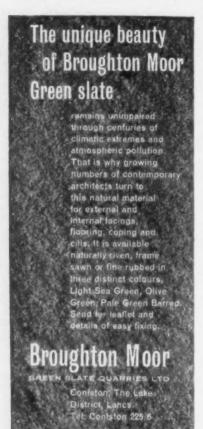
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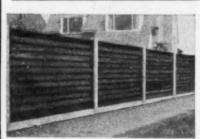
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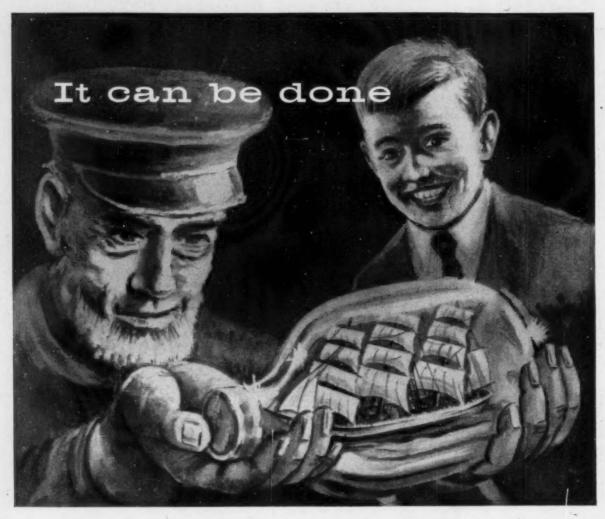
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